

NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

PURSUING THE BOTTOM LINE: HOW THE MIDDLE EAST WILL BE AFFECTED BY AN AGING AMERICA

by

Stephen E. Bergey

September 2007

Thesis Advisor: Robert Looney Second Reader: Richard Doyle

Approved for public release; distribution is unlimited



THIS PAGE INTENTIONALLY LEFT BLANKREPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE September 2007	3. RE	PORT TYPE AND DATES COVERED Master's Thesis
4. TITLE AND SUBTITLE Pursuing the Bottom Line: How the Middle East Will be Affected by an Aging America			5. FUNDING NUMBERS
6. AUTHOR(S): Stephen E. Bergey			
7. PERFORMING ORGANIZATION NAME(S) Naval Postgraduate School Monterey, CA 93943-5000	AND ADDRESS(ES)		8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING /MONITORING AGENCY NA N/A	AME(S) AND ADDRESS	(ES)	10. SPONSORING/MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES The views expr or position of the Department of Defense or the U.S.		se of the	e author and do not reflect the official policy
12a. DISTRIBUTION / AVAILABILITY STATE	EMENT		12b. DISTRIBUTION CODE

13. ABSTRACT (maximum 200 words)

Approved for public release; distribution is unlimited

The Middle East plays a vital role in the world economy. Resource rich, it provides much of the energy that the advanced industrialized societies need to keep their economies growing. Challenges in the region lie on the horizon, however, and are beginning to take shape today. These challenges, if left unresolved, could create more regional instability and could have far-reaching consequences. The United States faces its own challenges in the coming years. Demographic trends and budgetary concerns call into question the ability of the United States to lead in the coming decades.

This thesis examines the confluence of issues facing Middle Eastern countries today, while also linking demographic trends currently underway in the United States with the country's ability to fulfill its on-going role in the Middle East. In so doing, it assesses the impact of an aging America on the federal budget and the ramifications of this impact on not only the U.S. Department of Defense, but also for the entire Middle Eastern region.

14. SUBJECT TERMS Iran, glob Security, Medicare, Medicaid, enti spending, United States, foreign m	15. NUMBER OF PAGES 101		
fertility rate	16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UU

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. 239-18

Approved for public release; distribution is unlimited

PURSUING THE BOTTOM LINE: HOW THE MIDDLE EAST WILL BE AFFECTED BY AN AGING AMERICA

Stephen E. Bergey
Major, United States Air Force
A.B., University of Georgia, 1994
M.B.A., Colorado State University, 1999
M.A., Fletcher School of Law and Diplomacy, Tufts University, 2006

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

from the

NAVAL POSTGRADUATE SCHOOL September 2007

Author: Stephen E. Bergey

Approved by: Robert Looney

Thesis Advisor

Richard Doyle Second Reader

Douglas Porch

Chairman, Department of National Security Affairs

ABSTRACT

The Middle East plays a vital role in the world economy. Resource rich, it provides much of the energy that the advanced industrialized societies need to keep their economies growing. Challenges in the region lie on the horizon, however, and are beginning to take shape today. These challenges, if left unresolved, could create more regional instability and could have far-reaching consequences. The United States faces its own challenges in the coming years. Demographic trends and budgetary concerns call into question the ability of the United States to lead in the coming decades.

This thesis examines the confluence of issues facing Middle Eastern countries today, while also linking demographic trends currently underway in the United States with the country's ability to fulfill its on-going role in the Middle East. In so doing, it assesses the impact of an aging America on the federal budget and the ramifications of this impact on not only the U.S. Department of Defense, but also for the entire Middle Eastern region.

.

TABLE OF CONTENTS

I.	INT	RODUCTION	1
	A.	PURPOSE	1
	В.	WHY THIS STUDY IS IMPORTANT	2
	C.	WHAT THIS STUDY IS AND WHAT IT IS NOT	5
II.	THE	MIDDLE EAST – A CONFLUENCE OF ISSUES	
	A.	INTRODUCTION	9
	В.	GLOBALIZATION	10
		1. Early 1900s to 1980s	10
		2. 1980s to Present	12
		3. Globalization: Concluding Remarks	15
	C.	YOUTH BULGE	15
		1. Total Fertility Rate Defined	15
		2. Total Fertility Rates in the Middle East	15
		3. The Youth Bulge Projected	
		4. Youth Bulge: Concluding Remarks	17
	D.	GROWING IRANIAN INFLUENCE	
		1. Back to Strict Conservatism and Anti-Semitism	18
		2. Nuclear Proliferation	18
		3. Aspirations for Regional Hegemony	19
	E.	CONCLUSION	
III.	DEN	OGRAPHY IS DESTINY	23
	A.	INTRODUCTION	23
	В.	POPULATION GROWTH IN THE UNITED STATES	24
		1. Introduction	24
		2. Population Growth in the United States	25
		3. The Impact of Immigration on Growth in America	26
		4. The Aging of the United States	
		5. Population Growth in America: Concluding Remarks	28
	C.	ENTITLEMENT SPENDING IN AMERICA – SOCIAL SECURITY	28
		1. Introduction	28
		2. The Role and Evolution of Social Insurance in America	29
		3. Social Security: Past, Present and Future	30
		4. Social Security: Concluding Remarks	34
	D.	ENTITLEMENT SPENDING IN AMERICA - MEDICARE AND	
		MEDICAID	35
		1. Introduction	35
		2. Healthcare in the Federal Budget	
		3. Medicare	
		4. Medicare's and Medicaid's Long-Term Economic Impact on	
		the Federal Budget	
		5. Healthcare: Concluding Remarks	40

	E.	CONCLUSION	40
IV.	ABIL	ITY TO DEFEND THE NATIONAL INTEREST	43
	A.	INTRODUCTION	43
	В.	DISCRETIONARY SPENDING	44
		1. Introduction	44
		2. 9/11 Implications for Defense Outlays	
		3. Discretionary Spending: Concluding Remarks	49
	C.	CHALLENGES FACING THE DEFENSE DEPARTMENT	50
		1. Introduction	
		2. Rising Cost of Personnel and Equipment	
		3. Defense Department Challenges: Concluding Remarks	
	D.	PROJECTING THE FUTURE OF DEFENSE SPENDING	
		1. Introduction	
		2. Future Defense Projections	
		3. Modeling the Future of Entitlements and Defense Spending	
		4. Future Projections: Concluding Remarks	
	E.	POSSIBLE SOURCES FOR FILLING A VOID	
		1. The Ability of Allies to Contribute to the Common Defense	
		2. The Use of U.S. Foreign Aid to the Middle East	
		3. Filling a Void: Concluding Remarks	
	F.	CONCLUSION	64
V.	CON	CLUSION	67
APP	ENDIX	A – COST OF OASDI (BILLIONS)	71
APP	ENDIX	B – COST OF MEDICARE (BILLIONS)	73
APP	ENDIX	C – COST OF MEDICAID (BILLIONS)	75
APP	ENDIX	D – DEFENSE OUTLAYS (BILLIONS)	77
LIST	OF RE	FERENCES	79
		KS	
		RNALS	
		AZINE AND NEWSPAPER ARTICLES	
		SITES	
TAITT		STDIDITION I IST	0.5

LIST OF FIGURES

Figure 1.	Middle East Total Fertility Rates (TFR)	.16
Figure 2.	Population of the United States (in Millions)	.26
Figure 3.	OASDI Income and Cost Rates Under Intermediate Assumptions as a	
	Percentage of Taxable Payroll	.32
Figure 4.	Social Security Spending as a Percentage of GDP	.33
Figure 5.	Long-Range HI Income and Cost as a Percentage of Taxable Payroll	.37
Figure 6.	Entitlements as a Percentage of GDP	.39
Figure 7.	Composition of Federal Spending	.45
Figure 8.	Defense Spending as a Percentage of GDP	.46
Figure 9.	Projected Defense Spending to 2030, (Constant 2005 Dollars)	.53
Figure 10.	Impact of Mandatory Programs on Federal Spending	.56

LIST OF TABLES

Table 1.	Healthcare Spending in the Federal Budget	36
	Relative Ability to Contribute	

ACKNOWLEDGMENTS

First and foremost, I would like to concede special gratitude to Professors Robert Looney and Richard Doyle for encouragement and advice during the researching, writing, and editing phases of this project. To Professor Looney, your mentorship and tutelage will always be remembered. To Professor Doyle, your blend of scholarship and humor inspired me to achieve more than a cursory glance of the federal budget and how its primary components are linked to U.S. involvement and success in the Middle East.

My thanks also needs to go to all of the professors in the National Security Affairs Department at the Naval Postgraduate School whom I have had the privilege to learn from: Donald Abenheim, Anne Marie Baylouny, Anne Clunan, Abbas Kadhim, Jeffrey Knopf, Robert Looney, Michael Malley, Vali Nasr, Gwenn Okruhlik, James Russell, and James Wirtz. I consider myself fortunate to have had the opportunity to learn from such exceptional people, and I am a better military officer, a better scholar, and a better man for the experience.

Last, but certainly not least, I need to thank my family. My daughter, Caitlyn, and my son, Connor, accepted their father's long hours of study with a degree of understanding that belies their young age. To my wife, Jennifer, it has been both the joy and honor of a lifetime to share in the memories of our past and the hopes for our future. Without you, nothing I do is possible. I have asked a lot of you and the family, and you have given it all and some more. I am forever in your debt and your name belongs alongside mine on my NPS diploma, for without you, I could not have completed this wonderful program.

I. INTRODUCTION

A. PURPOSE

The Middle East today is dealing with a confluence of issues that, if left unresolved, could foment political instability, economic stagnation, and social repression in the coming decades. For some this would appear to be more of the same for a region that has yet to fully integrate itself in the global community of states, a region that is struggling with its identity. Due to its energy resources, position as the crossroads between three continents, and rich cultural heritage, a stable Middle East has much to offer the rest of the world. The forces of globalization and free market economics have integrated the world in a way that has never been seen before. Wealth creation, although not enjoyed and appreciated by all countries, has lifted many civilizations out of poverty and on the road to developed nation status. This post World War II phenomenon relies significantly on the free flow of crude oil to world markets, oil found in abundant supply in the Middle East.

No country is without its challenges. Middle Eastern countries certainly have too many to name here, not least of which includes political institutions led by autocrats or theocrats who struggle to find a balance between historical identity and the distribution of riches possible within a global economic system or, in some cases, to hang on to power.

The countries at the fore of the globalization effort, primarily the advanced industrialized societies of Asia and the West, have their own challenges to face. As modern welfare states, Western societies are beginning to come to grips with the potentially crippling effects of a dwindling population. As the population ages, it leaves in its wake a smaller number of people to provide the tax base for entitlement spending. In turn, a strain is put on the ability of the welfare state to make good on past promises largely considered part of a social contract between the state and its people. Said another way, the challenge of providing for the elderly could lead to political instability as the promises formerly made by the state become more difficult to fulfill.

Demographic trends are certainly not an anomaly that only the West has to face. On the contrary, all across the globe countries are facing challenges of population growth and decline. Unlike the developed industrialized countries of the world that are facing the prospects of societies in decline as a result of aging and receding populations, the developing world is dealing with a preponderance of countries facing rapid increases in population.

The challenges facing growing countries like those found in the Middle East are well documented. Issues include job opportunities when the young enter adulthood, the ability of the state to provide even basic services and infrastructure to the growing population, and the question of whether resources as basic as water will be abundant enough to sustain the growth. Combined, these challenges could lead to political instability and the possible collapse of the state.

The one country that seems best positioned to weather the storm is the United States. Although its population will age in the coming decades, putting exceptional strain on the entitlement programs promised to the elderly, the U.S. population is projected to grow. What effect will the strain on entitlements have on the ability of the United States to conduct foreign policy abroad, primarily from a military perspective? Will the United States struggle to maintain its military dominance around the globe and, most importantly, in the Middle East? What challenges will the U.S. face when attempting to provide stability in this rather unstable region, and how will the troubles facing America at home affect its efforts abroad? These questions and more will be answered in this thesis.

B. WHY THIS STUDY IS IMPORTANT

The sources of concern in the Middle East are well-documented and play out every day in the media here in the United States. Extremist ideologies, sectarian violence, and American body counts in Iraq are constantly reported alongside images of suicide bombers, flags burning, and public protesters proclaiming the death of America. The images have become so engrained in the heads of most Americans as to make them numb, and with an election year rolling around in 2008, national security is a high interest agenda item amongst voters. In November 2006, Democrats retook control of

both chambers of Congress from the Republicans who held power since the early years of the Clinton Administration. Democrats saw this as a mandate to bring an end to the war in Iraq and as a right to more overtly challenge the policy decisions made by the Bush Administration, but the war on terror is drowning out the noise of what is arguably an even larger issue facing the people of America today. This larger issue, if not dealt with sooner rather than later, will have a rippling effect that crosses generations of Americans for years to come.

In 2004 and early 2005, four books were published that dealt with demographics either head on or tangentially. Combined, these books helped shed light on important elements of this thesis, some of which are purely demographic in nature and some of which are government responses to these pressures. A short synopsis of these four books is provided below.

- 1. The Empty Cradle: How Falling Birthrates Threaten World Prosperity and What to do About It (Longman): This book discusses the role that fertility rates and population growth have as a major source of economic growth. Longman also attempts to prove that depopulation can be the cause of economic stagnation. Since the majority of societies today facing depopulation are secular, well-educated societies, he claims that the cost of children and the cost of an aging society will slow these countries' pace of progress.¹
- 2. Fewer: How the New Demography of Depopulation Will Shape Our Future (Wattenberg): Ben Wattenberg's book analyzes the geopolitical, environmental, and world economy implications of a shift from population growth to population decline. As the inside flap of his book tells the reader, the United States may find itself with weaker allies who have ever-greater proportions of Muslim voters. Additionally, Europe may not be able to maintain its economic strength without vast numbers of immigrant workers workers they have resisted allowing into their countries.²

¹ Phillip Longman, *The Empty Cradle: How Falling Birthrates Threaten World Prosperity and What to Do about It* (New York: Basic Books, 2004), inside cover.

² Ben J. Wattenberg, *Fewer: How the New Demography of Depopulation Will Shape Our Future* (Chicago: Ivan R. Dee, 2004), inside cover.

- 3. The Coming Generational Storm: What You Need to Know about America's Economic Future (Kotlikoff and Burns): This book doubles as a demography book coupled with a fiscal policy book. The authors spend time discussing past, current, and future demographic trends in the United States and the fiscal burden these trends will have on future generations left to carry the burden. They state that by 2030 the collective population of the United States will be older than that in Florida today, that there will be twice as many retirees (as in 2004) but only 18 percent more workers to support them, and that there will be more strollers than walkers.³ Together, they argue, these trends will put America in a position that it will have an impossible task of growing out of without drastically increasing taxes on future generations.
- 4. Running on Empty: How the Democratic and Republican Parties are Bankrupting Our Future and What Americans Can Do About It (Peterson): The Chairman of the Council on Foreign Relations, Peter Peterson has written a book that takes an in-depth bi-partisan look at both political parties in an effort to explain the track of America's economy. Specifically, he explains the ramifications of a ballooning domestic deficit coupled with a large trade deficit and what it all means when coupled with a baby boom generation that will make unprecedented demands on entitlement programs such as Social Security and Medicare.⁴

Together these four books portray an alarming account of what faces the United States in the coming decades. Whether one believes the arguments made in these books or not, it is difficult to avoid the demographic crisis that looms ahead and the far-reaching implications of doing nothing about it in the short and medium term. What is potentially at stake is the U.S. economy in future years. A weak economy burdened with debt and large scale increases in entitlement spending is damaging to the nation's security as well as the global economy.

³ Laurence J. Kotlikoff and Scott Burns, *The Coming Generational Storm: What You Need to Know About America's Economic Future* (Boston: MIT Press, 2005), xvii.

⁴ Peter G. Peterson, Running on Empty: How the Democratic and Republican Parties are Bankrupting Our Future and What Americans Can Do About It (XYZ: Farrar, Straus, and Giroux, 2004), inside cover.

C. WHAT THIS STUDY IS AND WHAT IT IS NOT

This thesis is both international and domestic in its scope. Chapter II outlines the author's beliefs about the true challenges facing the broader Middle East today and into the foreseeable future. An effort is made to show the intersection of the key challenges that are beginning to play themselves out today but will continue to take front stage by the middle of the next decade.

Up to this point, the issue of demographics has been referred to in grave detail, and in Chapter III the issue of demographics will be readdressed. It is important to note here, however, that this thesis transcends demography and uses demography as the foundation for further study, not the study in itself.

Continuing in Chapter III is the notion that this thesis can be viewed like a four layered pyramid, with demographics at the base. Sitting atop demographics is the United States as a welfare state. How did America come to be a welfare state, what are the significant changes to the major entitlement programs over the years, and what do future projections of these programs look like? The author realizes that any projections are likely to be altered over time, and that entitlement projections should be seen as illustrations of the future if no legislative changes or changes in social behavior occur. In other words, the projections contained in this study are only appropriate at this particular point in time. For example, healthcare reform or the delayed retirement of a large portion of the baby boom generation will likely alter the projections used here.

Chapter IV introduces the third layer of the pyramid, the layer that revolves around defense spending, and it is here that this thesis separates itself from other work. Originally this thesis began with a regression analysis intended to prove that entitlement spending in any given year would explain a large portion of the variation in defense spending. This knowledge, if successful, would aid in forecasting future defense outlays since future projections have been made about entitlement spending. Unfortunately the regression analysis proved baseless and an alternate method for projecting future defense spending was needed. In the end, the method employed will be used to answer questions such as, "to what extent will entitlements and demographics affect the resources available

to the Department of Defense (DoD)," and "will these trends force the United States to recede from its overseas missions and become a 'defense of the homeland' force only?"

Only after these questions are answered can one draw reasonable implications for the DoD and, more broadly, U.S. foreign policy in the future. A transition is made to the top layer of the pyramid – a drawing of conclusions about America's ability to continue projecting a preponderance of power around the globe and, especially, in the Middle East in the coming decades.

Through preliminary research, it was determined that a significant amount of information is available on demographics. There is also a plethora of articles and think tank studies on the solvency of America's entitlement programs. When it comes to future projections for defense spending and, more specifically, the effects of demographics and entitlement projections on defense spending, however, the literature is nearly non-existent. Additionally, nothing was found linking demographic challenges in America to the military's ability to fulfill its missions and obligations in the Middle East in out years.

The reason for the small amount of literature on future defense projections and the correlation it has with demographics and entitlements is largely due to the fact that defense spending is discretionary spending, a term that will be defined later. As a discretionary program, defense spending can go up or down in any given year depending on the needs of the President and the approval of Congress. Because such future projections vary widely, it is nearly impossible to project future defense levels with any certainty, or at least that is the general consensus. This thesis will attempt to break that mold, and determine a way to forecast future defense spending with some accuracy. This is, of course, no small feat.

Although this is a large undertaking, it is one that is imperative and whose time is due. With future anticipated budget crunches, senior decision makers in Washington should better be able to determine defense outlays. This will aid in the effort to determine future manning levels, monies available for continued research and development, monies for operations and maintenance, and even for the ability of the United States to wage war on adversaries.

The overarching aim of this study is to determine whether the United States is positioning itself for all foreseeable and unforeseeable challenges in the coming two-to-three decades given current demographic, budgetary and political constraints. Secondary and tertiary aims of this study are to highlight the causes of any impediments to U.S. supremacy between 2007 and 2030 and the implications of those causes.

II. THE MIDDLE EAST – A CONFLUENCE OF ISSUES

A. INTRODUCTION

On 6 January 1941, Franklin Roosevelt delivered an inspiring message to Congress that invoked passion in both Americans and her allies abroad. Called the "Four Freedoms" speech, Roosevelt proclaimed the freedom of speech and expression, the freedom of every person to worship God in his own way, the freedom from want, and the freedom from fear...anywhere in the world. These principles served as the morals, ideals, and values that the United States was to employ during a time of Nazi Germany occupation over much of the European continent.

Almost seventy years later these words still speak to American idealism, but the process of spreading freedom is on-going. In the Middle East, repression, tyranny, and authoritarianism still dominate the political landscape. Freedom House, a non-profit, non-partisan organization interested in promoting freedom the world over, conducts an annual *Freedom in the World* survey which measures a country's political rights and civil liberties. Each country is assigned a numerical rating from 1 to 7, where 1 indicates the highest level of freedom and a score of 7 indicates the least amount of freedom. In its 2007 edition of the survey, no Middle Eastern country except for Israel was considered free. In fact, only four countries were considered partly free with the rest listed as not free.⁵

Since the death of the Prophet Mohammad in 632 AD, the Middle East has served as both a civilization worthy of admiration as well as a civilization in decline and decay. Unlike the Western experience, the transformation that has overtaken the Middle East is one of glory-to-gloom. Once the envy of the world, the Middle East today suffers from a sense of backwardness and underdevelopment.

The reasons for this underdevelopment are many, but only three will be mentioned here. First, the effects of globalization have largely been negative in this

⁵ Freedom House, "Freedom in the World, 2007 Edition," http://www.freedomhouse.org/template.cfm?page=366&year=2007 (accessed 11 August 2007).

region. Prosperity and progress have been slow and uneven, resulting from both the intervention of external forces and the lack of capacity to govern effectively from within. A second reason for pause is demographic. A region that has exhibited a population explosion since World War II, from 60 million in 1950 to 265 million in 2005, is now entering a stage of crisis.⁶ The so-called "youth bulge" is expected to worsen by the middle of the next decade when this cohort enters their productive work years. If jobs cannot be created for these people, the state may be blamed for its inadequacies. Finally, an Iran that is seemingly growing in influence in the region creates challenges for not only the United States but for the other countries in the region.

This confluence of issues – globalization, youth bulge, and the rise of Iranian influence – poses a significant long-term problem for the United States. By the middle of the next decade, all three issues may dominate the region concurrently, providing a breeding ground for dissent not yet realized. This chapter will attempt to highlight how these three issues, beginning to play out this decade, may get worse in the future, causing concern among the other nations of the world. Can the United States continue to provide large troop levels and a large financial commitment to the region, or will the challenges yet to come cause the United States to reconsider its strong presence in the Middle East?

B. GLOBALIZATION

1. Early 1900s to 1980s

The slow economic development of the Middle East can be attributed to many things, but only a few will be noted here. With the exception of Egypt, which has been an autonomous or semi-autonomous state for more than a century, every country in the Middle East gained its independence following the dissolution of Ottoman rule after World War I. More than half of the countries in the Middle East gained their independence much later than that – after World War II to be exact – from the colonial powers of Britain and France. It was during the brief Western European experience that modern institutions were built, but the newly independent countries struggled to adapt to

⁶ U.S. Census Bureau, "International Database," http://www.census.gov/cgi-bin/ipc/idbagg (accessed 11 August 2007).

the Western models so foreign to them at the time. This would come to have long term unintended consequences, as many of the leaders ruled with an iron fist to maintain their legitimacy and hold on power.

The economic challenges of the post World War II era were the same in the Middle East as they were in many other parts of the world. The onslaught of socialism led by the Soviet Union fought against the capitalist mindset established by the West and led by the United States. Although the traditional monarchies of the Arabian peninsula tried to distance themselves from this ideological debate, the radical republics of Egypt, Iraq and Syria were among those who sided with socialism from the 1940s to 1970s. Some key characteristics of this strong interventionist-redistributive model consisted of broadly similar economic and social policies that included reliance on state planning in determining economic priorities; the adoption of import-substitution industrialization policies; the implementation of a wave of agrarian reform programs; sweeping nationalizations of private and foreign assets; programs for state provision of education, housing, healthcare and food subsidies; and the emergence of centralized, hierarchical and tightly controlled trade unions, professional associations and ruling-party governments in which the political arena was viewed as an expression of the unity of the nation rather than a site of political contestation.⁷

The remnants of this period are playing themselves out today. Corruption continues, making the Middle East a poor place to invest. The prevalence of corruption is evident in the "Corruption Perceptions Index" of Transparency International, an organization that monitors the business climate in most major countries.⁸ The index scores countries on a scale of one to ten, with one being grossly corrupt and ten being clean. The 2006 Corruption Perceptions Index shows that, with the exception of Singapore (5), the top twenty countries are all advanced industrialized countries with

⁷ Tarik Yousef, "Development, Growth and Policy Reform in the Middle East and North Africa since 1950," *Journal of Economic Perspectives* 18:3 (2004): 92.

⁸ Timur Kuran, "Why the Middle East is Economically Underdeveloped: Historical Mechanisms of Institutional Stagnation," *Journal of Economic Perspectives* 18:3 (2004): 87.

scores ranging from 7.3 on the low end to 9.6 on the high end. The Middle Eastern countries of Egypt, Iran, Iraq, and Saudi Arabia all scored low with scores ranging from 1.9 to 3.3.

The issues surrounding governance in the Middle East were noted in the 2002 United Nations Arab Human Development Report, which finds that the Middle East is anemic in the areas of civil and political freedoms, gender equality, and more generally opportunities for the full development of human capabilities and knowledge. According to Robert Looney, to overcome slow development in the Middle East, modern institutions such as freely elected legislatures and competent and independent judiciaries and institutions that safeguard civil and human rights need to be strengthened.⁹

With poor governance, the road to liberalization and into the global economy has been daunting for many countries in the Middle East, especially those that lack abundant natural resources. It is to the issue of modern day globalization that this thesis now turns.

2. **1980s to Present**

Globalization is a nebulous term, poorly defined and believed to mean different things to different people in different parts of the world. It is generally understood in the West as an integration of national economies through trade, foreign direct investment, and capital flows, but cultural globalization and technological globalization exist as well. Although there are many camps on how to define globalization, one thing is very clear – there are equally as many camps that support and discredit this phenomenon. For one, globalization is seen as a good thing, a force that has created wealth for many millions of people while reducing poverty in many countries. For another, globalization is the root of all evil and a sign of Western economic and cultural imperialism.

One of the most outspoken people for the benefits of globalization is Jagdish Bhagwati. In his book, titled *In Defense of Globalization* (2004), he claims as "ludicrous" the attempts to knock globalization for inequality and other social ills. He proves that women's right are advanced by globalization and that child labor practices are more heavily scrutinized by globalization, noting that it is abject poverty itself that drives

⁹ Robert Looney, "Why has the Middle East Been so Slow to Globalize," *Review of Middle East Economics and Finance* 3:3 (2005): 200.

immoral child labor behavior, not globalization. He concedes that democracy is affected by globalization, but in a paradoxical way. Globalization constrains the exercise of sovereignty, and hence the sense and scope of democratic control, since independence will imply that an action by one nation-state will generally have consequences that will be affected by feedback from other nation-states; at the same time, one can plausibly argue that globalization promotes the transition to democracy by regimes that are not democratic. Open societies such as those found predominantly in the West are identifying ways to deal with the challenges that globalization poses for the state. The same cannot be said of the majority of countries in the Middle East who are turning to extremist behavior because of this perceived Western onslaught.

Globalization also has its detractors. One is Joseph Stiglitz, a well-known and respected academic as well as policy maker, who believes that globalization can be a good thing if employed correctly. In his book, *Globalization and its Discontents* (2002), he outlines decisions made by the more powerful countries in the world and international organizations such as the World Bank, decisions that have caused harm to the poorest people in the more undeveloped countries. Efforts to privatize public sector industries and liberalize financial markets have wreaked havoc on developing countries, he claims.

The sources of globalization have affected the Middle East in various ways, depending on where one looks. If globalization is an automobile, the countries of the Gulf serve as the engine, but oil is also a curse for these resource rich countries. Traditionally speaking, the legitimacy of the ruling families was based on religious authority, but lately the ability to prop up standards of living through oil revenue mobilization has also contributed to the ruling families' legitimacy. Most Gulf states use oil revenues to provide subsidies, jobs in overstaffed bureaucracies, and inefficient enterprises. When oil prices go south, as they did in the 1980s, the ripple effects of the oil bust are felt around the country. When a government remains in power only because of oil money, no fiscal adjustment will be possible unless forced by a crisis.¹¹

¹⁰ Jagdish Bhagwati, *In Defense of Globalization* (New York: Oxford University Press, 2004), 92-93.

¹¹ Benn Eifert, Alan Gelb, and Nils Borje Tallroth, "Managing Oil Wealth," *Finance and Development* 40:1 (2003).

The non-oil rich countries of the Middle East are also deeply affected by globalization. A large portion of these countries' populations work abroad and send remittances back home. Therefore, they go the way the Gulf countries go. When times are bad, political instability arises because the state is seen as not providing for the people. This was further exacerbated in the 1990s under the auspices of the Washington Consensus, the efforts of the U.S. Treasury Department, the International Monetary Fund, and the World Bank to liberalize the economies of select countries in Latin America and the Middle East. Eight countries from the Levant and Northern Africa went through these structural adjustment programs, designed to grow the economy and spur trade. To that end, social welfare programs were cut, resulting in increased poverty, inequality, and unemployment.

The two Middle Eastern countries in this thesis that underwent such structural adjustment, Egypt and Jordan, have met with both success and failure. They reduced inflation and budget deficits, but they failed in other areas intended to lead to sustainable development, including improvement in the rate of savings, investment and growth.¹² As a result, unemployment has risen since the 1980s and the social services no longer being provided to the people are a cause of discontent for the people hit hardest by structural adjustment.

There has not been a shortage of groups willing to fill the voids left by the state; the Islamist groups providing social welfare are growing in both number and importance, appealing to large swaths of the population and creating opportunities for political instability. There is already a growing body of evidence suggesting that economic liberalization and other forms of globalization that began in the 1990s have opened up a space which is rapidly being occupied by religious groups in the region, some of which nurture extremist and violent viewpoints.¹³

¹² Hamed El-Said and Jane Harrigan, "Globalization, International Finance, and Political Islam in the Arab World," *The Middle East Journal* 60:3 (2006): 456.

¹³ *Ibid*, 459.

3. Globalization: Concluding Remarks

Globalization has affected different countries in different ways, and this is certainly the case in the Middle East. Whether resource rich or resource poor, globalization has had an effect on the legitimacy of the ruling parties and the people being governed. Believed to be an engine that increases the wealth of the people, globalization has also created haves and have-nots in the Middle East, with the latter being cared for by religious factions filling a void formerly filled by the state.

C. YOUTH BULGE

1. Total Fertility Rate Defined

When determining future population trends, the total fertility rate or TFR is the most widely used statistic. In order for a country to replace its population, it must have a TFR that is equal to 2.1 children per woman, on average, between the ages of 14 and 49, a woman's fertile years. The two represents one child each to replace the mother and the father of those two children. The one-tenth of a child represents the roughly ten percent of children that do not reach reproductive age. Should a country fall below the TFR, it must make up the difference through immigration or stand to lose its population over time.

2. Total Fertility Rates in the Middle East

Only 25 short years ago it was common to find fertility rates throughout the Middle East between six and seven children per woman; today, however, that tide has definitely turned. The United Nation's Population Division now shows the total fertility rates for the countries in the Middle East as follows:¹⁴

¹⁴ United Nations Population Division, "World Population Prospects, the 2006 Revision Database," http://esa.un.org/unpp (accessed 17 July 2007).

Figure 1. Middle East Total Fertility Rates (TFR)

Middle East Total Fertility Rates (TFR)

At first, these numbers may be surprising. In 1980 all countries in the Middle East had TFRs between roughly 4.0 and nearly 9.0. 25 short years later, only two countries still have TFRs above 4.0 and those two countries, Iraq and Yemen, are projected to see their TFRs shrink to near replacement levels by 2030.

What is causing this decrease in the Middle East? A bulletin from the Population Reference Bureau states "education is the single most important determinant of the average age at marriage and age at first birth in the Middle East…because women in the region tend to give birth soon after marriage." Education has second and third tier effects. Namely, educated women are more likely to be in search of economic opportunity compared to non-educated women. Also, educated women on average have healthier families and are more knowledgeable about birth control options than non-educated women.

3. The Youth Bulge Projected

What is alarming in the Middle East is the youth bulge. The United Nations defines a "youth" as someone between the ages of 15 and 24 and adolescence as those between 10 and 19. The Population Reference Bureau shows that in 2006 the range of

¹⁵ Population Reference Bureau, "Transitions in World Population," *Population Bulletin* 59:1 (2004).

the percentage of youth in each Middle Eastern country was between 20 and 36.¹⁶ In other words, up to one-third of all Middle Easterners are youth, between the ages of 15 and 24. Within a decade, or by about 2015, up to one third of the Middle Eastern population will enter adulthood, in search of jobs and the possibility of providing a life for themselves and their families. Years of school, higher learning, and hope will be put to the test. If the state is unable to provide these jobs, it will be the state that the disenfranchised will turn their backs on. This will put a strain on the social fabric and create great stresses on the governments in the region.

4. Youth Bulge: Concluding Remarks

The poor prospects for work in the Middle East are currently creating despair and lack of hope for a brighter future. Although most of the people from the Middle East live peacefully, some of the more disenfranchised have turned to fanatical causes, joining al-Qaeda or becoming suicide bombers. Suicide terrorism is often linked to political Islam, but to think the argument stops there is to miss the point. The thing that fuels these barbaric acts, exclusion from the political and economic space, is what needs to be better understood.

If the governments in the Middle East can improve their political capacity and extract physical and human resources from their populations, they can climb to developing nation status and reap the rewards of sustained economic growth that comes with a growing population. In the short term, however, with the youth bulge about to burst, this seems highly unlikely and will create significant challenges within the next ten years, challenges that will look similar to the ones being faced today but with more people entering the fray.

¹⁶ Population Reference Bureau, "Data Finder," http://www.prb.org/DataFind/datafinder7.htm (accessed 17 July 2007). Data shows the following percentages for youth in each Middle Eastern country: Bahrain (24), Egypt (31), Iran (36), Iraq (32), Jordan (31), Kuwait (23), Lebanon (28), Oman (32), Qatar (20), Saudi Arabia (30), Syria (34), UAE (24) and Yemen (35).

D. GROWING IRANIAN INFLUENCE

1. Back to Strict Conservatism and Anti-Semitism

In June 2005, Mahmoud Ahmadinejad won an election run-off against reformminded conservative and former President of Iran, Akbar Hashemi-Rafsanjani. With this election victory, the reform efforts of out-going President Mohammad Khatemi effectively ended and Iran has been on a new track ever since.

Ahmadinejad has spared no opportunity to lash out at both Israel and the United States. He claims that Israel should be "wiped off the map," and on a couple of occasions he has questioned the veracity of the Holocaust. His strong words about Israel heading toward annihilation have sparked concern from the international community that it might be Iran's intent when it becomes militarily capable.

2. Nuclear Proliferation

The National Security Strategy of the United States notes that, "we may face no greater challenge from a single country than from Iran."¹⁷ The document refers to Iran 16 times, as much as both Afghanistan (15) and North Korea (1) combined. There are two alleged reasons for this. First, Iran's growing weapons of mass destruction (WMD) program, and second, its growing ability to exert influence in the region.

As a Nuclear Non-Proliferation Treaty (NPT) signatory, Iran has agreed to not develop a nuclear weapons arsenal. Iran insists that its current pursuit of nuclear technology is for peaceful purposes only and that the country needs nuclear energy to meet its electricity generation needs in the future. At issue here, however, is that the Iranian government has not always been forthright with its nuclear program over the years, casting doubt and suspicion amongst interested countries. Suspending inspections from the International Atomic Energy Agency (IAEA) has not helped matters either. The IAEA, despite intensified inspections and other means of investigation since late 2002, says it cannot verify that Iran's program is purely peaceful, and several of its reports (31 January 2006 and 27 February 2006) say it found documents that show a possible

¹⁷ Office of the President of the United States, "The National Security Strategy of the United States of America," http://www.whitehouse.gov/nsc/nss/2006 (accessed 27 July 2007).

"military nuclear dimension" to Iran's program. At a nuclear energy conference in Luxembourg on 24 May 2007, the Chief of the IAEA, Mohammad al-Baradei, stated that it was his belief Iran could build a nuclear weapon within "three to eight years," between 2010 and 2015.

Although Iranian leaders insist on the peaceful use of this technology, many critics are not sure. If Iran did obtain nuclear weapons technology, it could use it to bolster its standing in the region, could dominate the Persian Gulf and the Straits of Hormuz, could possibly afford to take on a more bellicose foreign policy against the United States, and could possibly transfer WMD to extremist groups or countries. These options are not palatable for the United States.

3. Aspirations for Regional Hegemony

In addition to Iran's alleged WMD ambitions, the government of Iran is increasing its influence in the region. By supporting Lebanese Hezbollah and Palestinian militant groups, Iran is able to influence policy decisions in the Israeli government and stoke fear amongst those in the region who hope to balance Iranian power.

The State Department's report on terrorism for 2006, released 30 April 2007, states that Iran is the most active state sponsor of terrorism and claims Iran provides extensive funding, training, and weapons to Hamas, Palestinian Islamic Jihad, the al-Aqsa Martyrs Brigades, and the Popular Front for the Liberation of Palestine. The effectiveness of the weaponry and training being deployed was seen in July – August 2006, when Israel attacked Southern Lebanon after Hezbollah members abducted two Israeli soldiers. In the 34 days that followed, Israel had a difficult time diminishing the ability of the Hezbollah members from waging war against the state, and to many in the international community the conflict was seen as a defeat of sorts for Israel, shattering the once held notion that the gap between Israel's military and those of adversaries in the region was wide. Iran is also visible in Iraq today, where American intelligence officials

¹⁸ Kenneth Katzman, "Iran: U.S. Concerns and Policy Responses," *Congressional Research Service*, 23 January 2007, 15.

¹⁹ U.S. State Department, "Country Reports on Terrorism 2006," http://www.state.gov/s/ct/rls/crt/2006/82736.htm (accessed 27 July 2007).

have accused the Islamic Revolutionary Guard Corps in Iran of providing lethal roadside bombs used against American and Iraqi forces.²⁰

Some academics and policy makers further believe that Iran is positioning itself to control the Gulf. The strength of their influence will come from their Shi'a religion. A leading proponent for this theory is Vali Nasr who claims that the sheer size of the Shi'a population today makes them a potentially powerful constituency in the region. Says Nasr, "Shiites account for about 90 percent of Iranians, some 70 percent of the people living in the Persian Gulf region, and approximately 50 percent of those in the arc from Lebanon to Pakistan – some 140 million people in all." If a democratic Middle East comes to fruition and the people vote along religious lines, it is not too far-fetched to see a changing of the landscape in the coming years where Shi'as could come to dominate politics in the traditionally Sunni dominated Middle East.

E. CONCLUSION

The Middle East was once been the envy of the world. Religious domination over a millennium ago led to control of a land mass greater than Alexander's great conquests. There was a time when Edward Said's *Orientalism*, a book about how the Occidental West viewed the backward Arabs as irrational and menacing, was turned on its head, when there were Middle Easterners and then the irrational and menacing Occidentals. In the span of a few centuries, however, the Occidentals reformed their political and economic structures and far surpassed the Ottomans. This trend continues to this day. Throughout the 20th century and into the 21st, the Middle East region suffers under the weight of repressive regimes where no country, except Israel, is considered free.

If the three sources of regional instability highlighted above prove to be true, the Middle East could be a tinder box for years to come. The three sources of potential instability are globalization, a disenfranchised youth, and growing Iranian influence, and all three may converge by the middle of the next decade. The six non-oil rich countries –

²⁰ Michael R. Gordon, "U.S. Says Iran-Supplied Bomb is Killing More Troops in Iraq," *New York Times*, 8 August 2007.

²¹ Vali Nasr, "When the Shiites Rise," *Foreign Affairs*, (2006), http://www.foreignaffairs.org/20060701faessay85405/vali-nasr/when-the-shiites-rise.html (accessed 3 August 2007).

Egypt, Israel, Jordan, Lebanon, Syria, and Yemen – will continue to find it difficult to liberalize their economies while a huge demographic of 20- and 30-somethings seek meaningful employment. As for the eight oil-rich countries bordering the Gulf – Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates – their populations are also becoming uneasy, citing job opportunities as a primary source of concern about their future due to the large number of expatriate workers in the Gulf.²² If the price of oil recedes sharply in the coming years, the landing could be a hard one indeed.

The confluence of challenges looming on the horizon in the Middle East leads one to ask what can be done to allay the fears of the region's followers. Will the United States be positioned to leverage its resources to maintain stability and order? This pertinent question can now be reviewed in detail in the coming chapters. This chapter served to provide a context for the issues facing the United States in the Middle East in the years to come. This thesis will now turn its attention to the domestic front in an effort to determine whether the United States will be able to provide the necessary resources for this undertaking.

²² Oxford Analytica, "Middle East: Population Growth Poses Huge Challenge," *Oxford Analytica* (2007): 3.

THIS PAGE INTENTIONALLY LEFT BLANK

III. DEMOGRAPHY IS DESTINY

A. INTRODUCTION

If "demography is destiny" as Auguste Comte, the 19th century French mathematician and sociologist, said, the developed countries of today's world should take note of current and future demographic trends and realize that time is not on their side. In the first quarter-to-half of the 21st century, demographic trends could alter the balance of power to the extent that today's developed countries will begin to be challenged by today's developing countries. This will come about with increases and decreases in population and the effects this will have on countries' economic, political, and military structures and potential.

Throughout human history, the population of the world remained steady, with the population exploding in the past 250 hundred years.²³ Advances in agricultural technology allowed humans to get more from the land they work, and the impact of the Industrial Revolution and advances in medicine, public health, and sanitation have facilitated aggregate population growth and a demographic shift to cities.

This phenomenon has had far reaching implications for the advanced industrialized societies. Defined here as the "West," these countries include those in North America, Europe to include Russia, Japan and Australia. Together, most of these countries are entering a phase of human history that has never been seen before. The U.S. Census Bureau reports that for the foreseeable future, Russia's population will fall at a rate of roughly three-quarters of a million people each year.²⁴ Japan's population reached its peak in 2005 and is now beginning to decline. By 2025, Japan's population is projected to recede by 500 to 700 million persons each year.²⁵ Europe is expected to see its population fall from its current 731 million to 715 million by 2025 and approximately

²³ U.S. Census Bureau, "Historical Estimates of World Population," http://www.census.gov/ipc/www/worldhis.html (accessed 12 August 2007).

²⁴ U.S. Census Bureau, "International Database," http://www.census.gov/cgi-bin/ipc/idbsprd (accessed 12 August 2007).

²⁵ *Ibid*.

664 million people between the years 2000 to 2050, a total decline of over 65 million people by mid century; Germany will contribute to this decline, with the expectation that its population will diminish from 82.6 million today to 80.3 million in 2025 and 74.1 million in 2050.²⁶

What makes the softening of this fall all the more difficult is the fact that these countries are largely social welfare states, providing income and benefits to the aged population that is no longer in the workforce. As the population ages, the strain put on the entitlement programs of these various countries could be severe short of reform, with implications for other government programs such as defense.

This chapter will serve as a case study of the United States. How are demographic trends currently underway likely to affect the United States as a welfare state and, more broadly, the whole federal budget? Are the trends that are projected to occur in the next two decades sustainable in the long run? What are the likely costs of inaction by the nation's leaders?

B. POPULATION GROWTH IN THE UNITED STATES

1. Introduction

International relations theorists of the realist tradition believe that population gives a country potential to be economically and militarily productive; thus, population growth is a key variable in determining a country's relative power in the international system. Jacek Kugler and Ronald Tammen note that "population is the sine qua non for great-power status. Population provides the potential resource pool from which a nation can mobilize and extract resources. Without a relatively large population, a nation cannot hope to become either a great power or a dominant nation [and it] ultimately determines the power potential of a nation and is the element that determines which nations will remain major powers."²⁷ Where most developed countries of the world today fall well

²⁶ United Nations Population Division, "World Population Prospects, The 2006 Revision," http://esa.un.org/unpp (accessed 17 July 2007).

²⁷ Jacek Kugler and Ronald Tammen, "Regional Challenge: China's Rise to Power," *The Asia-Pacific: A Region in Transition* (2004): 39.

beneath the replacement level, the United States does not. A summary of American population and immigration trends will be provided below.

2. Population Growth in the United States

The TFR of the United States was over seven when the first census was taken in 1790. This high figure was similar to that of the Middle East post World War II and allowed the young country to grow rapidly as the Middle East is doing today. It was not until the 20th century, however, that the population of the United States grew to make it one of the largest countries of the world. After World War II, the TFR in the United States hovered around 3.5. Although the TFR dipped to just under 1.8 in the 1970s, it has since increased to between 2.0 and 2.1, which is where it has held steady since the early 1990s.²⁸

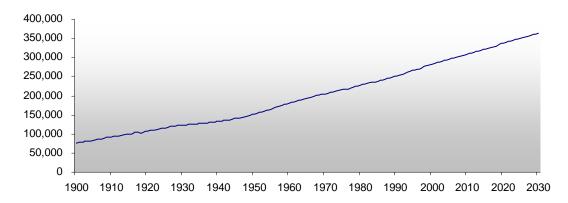
At the turn of the 20th century, the population of the United States was 76 million, similar in size to Ethiopia today, the world's 16th most populous country.²⁹ To put this into perspective, one only needs to look at the population of the city of Los Angeles between the years 1900 and 2000. Currently the second largest city in America with a population exceeding 3.7 million, Los Angeles had a population of just over 100 thousand only a century ago. During the 20th century, the United States would take 50 years to double its year 1900 size and another almost 50 years to double yet again. This equates to a quadrupling in size in one century as the population began closing in on 300 million, a mark that would be passed in the second half of 2006.

²⁸ United Nations Population Division, "World Population Prospects, The 2006 Revision," http://esa.un.org/unpp (accessed 17 July 2007).

²⁹ U.S. Census Bureau, "Historical Tables" and "International Database," http://www.census.gov/statab/hist/02HS0001.xls and http://www.census.gov/cgi-bin/ipc/idbrank.pl (accessed 17 July 2007).

Figure 2. Population of the United States (in Millions)

Population of the United States (Millions)



Source: From U.S. Census Bureau, "International Data Base," http://www.census.gov/cgi-bin/ipc/idbsprd, accessed 6 July 2007.

During the course of the 1900s, more and more Americans moved to towns and cities in search of work and prosperity. In the year 1900, 50 percent more Americans lived in rural areas than in urban areas. It was not until the 1920s when the tide started to turn in favor of the cities, and by the end of the century more than four times as many Americans lived in urban areas versus rural areas. The higher cost of living found in the cities, the higher need for educational attainment, and the entrance of women into the workforce had profound effects on American life. For one, men and women delayed the age of marriage and pushed back the child rearing years. The ramifications of this are just now being felt.

3. The Impact of Immigration on Growth in America

Since the late 19th century, the United States has benefited greatly from immigration. When a country's TFR is lower than replacement levels, the only way to grow the population is through immigration and no country receives more immigrants each year than the United States. The role of immigrants to America is well documented, and immigrants to the United States will continue to propel population figures well into the middle of the 21st century, assuming a continuation of current rates.

The origin of immigrants to the United States has changed over the past 100 years. During the years 1900 to 1909, more people immigrated to the United States as a percentage of the whole population than at any other time in the nation's history. Fifty percent of the growth of the country during that decade came from abroad, and over 92 percent of these immigrants came from Europe. The top three emigrant countries, in order, were Austria-Hungary, Italy, and Russia.³⁰ This is drastically different than the first seven years of the 21st century. No longer is Europe the dominant emigrant region to the United States, accounting now for just over 15 percent of total migrants to America. The countries replacing Europe are, in order, Mexico, India, and China.³¹

4. The Aging of the United States

The population of the United States is aging. The baby boom generation, defined as those born between 1946 and 1964, are by far the largest generation in America and one that is just now approaching retirement age. For Social Security purposes, a baby boomer can retire at the age of 62, albeit with reduced benefits.³² With this in mind, it can easily be calculated that those born in 1946 will begin turning 62 years of age in the year 2008. For those born in 1964, normal retirement age will come about in the year 2030.

Due to medical advances and increased access to healthcare among other things, people around the world are living longer and to ages unheard of only a hundred years ago. In 1950, only 12 percent of all Americans were aged 60 or older. By the year 2030, when the full weight of the baby boom generation is in retirement that number will be double. Additionally, in 1950 the median age of the American population, the age where

³⁰ U.S. Department of Homeland Security, "2006 Yearbook of Immigration Statistics," http://www.dhs.gov/xlibrary/assets/statistics/yearbook/2006/table02.xls (accessed 7 July 2007). Note Austria-Hungary's numbers are combined, 532,416 and 685,567 respectively. Italy emigrated 1,930,475 people and Russia 1,501,301.

³¹ *Ibid.* While 7,009,322 people have immigrated to the United States from 2000 through 2006, Mexico accounts for 1,208,908 of those people while India and China account for 421,006 and 384,553 respectively.

³² Retiring at age 62 represents a 75 percent benefit to a baby boomer born between 1946 and 1954. Beginning in 1955 and continuing each year until 1960, normal retirement age increases two months for each year until the normal retirement age goes from 66 years old for those born between 1946 to 1954 to 67 for those born in 1960 and after. As the normal retirement age increases, reduced benefits for retiring early – defined here as age 62 – goes down from a 75 percent benefit to a 70 percent benefit.

50 percent of the population is above and 50 percent of the population is below, was 30. In 2005 the median age was 36, and the number is projected to grow to 39 by 2030.³³ This upward trend is unprecedented in the nation's history and will create fiscal problems for the foreseeable future.

5. Population Growth in America: Concluding Remarks

Unlike the other advanced industrialized societies, the United States is projected to see population growth well into the 21st century. With total fertility rates at replacement level and more immigrants than any other country in the world, the United States is projected to remain the world's third most populous nation for many years.

C. ENTITLEMENT SPENDING IN AMERICA – SOCIAL SECURITY

1. Introduction

Social Security is arguably the most popular government program in the United States. For decades it has lifted people out of poverty and given every American a safety net during their retirement years. Nearly every American pays into the system and, thus, everyone who lives long enough stands to get something out of it.

This section will take a look at how this social welfare program was created and why. It will also bring to light the ways in which the program is increasingly under financial stress and the reasons behind this. Finally, this section will serve as a bridge between the demographic trends highlighted in the previous section and the role of America as a welfare state between now and 2030.

³³ United Nations Population Division, "World Population Prospects: The 2006 Revision," http://esa.un.org/unpp (accessed 17 July 2007).

2. The Role and Evolution of Social Insurance in America

When most people think about insurance, they think about private insurance such as life insurance, liability insurance, health insurance, and homeowners or renters insurance. These are contracts between an individual and a company to provide some kind of security against risk.

Social insurance is similar to private insurance in that it provides security against catastrophic loss, but the loss that social insurance takes aim at is the risk of poverty due to old age. Without it, many people could not afford to retire or would become burdens on their off-spring in order to live. For insurance to be social, it must have the following characteristics:

- Participation is mandatory or compulsory,
- It is created by governments, because only governments can mandate participation,
- Financing is compulsory and primarily collected through taxes,
- Eligibility for benefits is dependent in part on contributions by the individual.³⁴

Social insurance had its beginnings in the late 19th century when Otto von Bismarck created the first old-age and survivors pension in 1889. His efforts were followed by other European countries but did not take root in the United States until the Great Depression. President Roosevelt, looking to lead the nation through its troubled decade, wanted to expand federal social policy using Keynesian economic techniques, and he did just that in his New Deal.

For the first 15 years Social Security was not wildly popular and certainly not among the political right who preferred to abolish it altogether. Over time, however, it grew in popularity to the point that it became a bipartisan issue that would help shape domestic politics into the 1960s. This *pay-as-you-go* program gained momentum in 1962

³⁴ Wallace C. Peterson, *The Social Security Primer: What Every Citizen Should Know* (Armonk: M.E. Sharpe, 1999).

when Medicare was added to the public discourse. Finally, under President Johnson, Medicare and Medicaid (health insurance for the poor) were created in the Social Security Act of 1965.

Over the years, social insurance has been responsible for improving the lives of many Americans. The accomplishments of the old-age, survivors, and disability insurance (OASDI, commonly known as Social Security) are numerous and include the following:

- Without Social Security benefits, 46.8 percent of Americans aged 65 and older would have incomes below the poverty line,
- In 2002, one million children under age 18 were lifted above the poverty line by Social Security benefits,
- In 2002, Social Security provided 50 percent or more of the income of 66 percent of elderly people (those age 65 or older).³⁵

Past generations of Americans have done their part to make Social Security a mainstay in both American politics and the psyche of all retiring Americans. The system has not been reformed since 1983, however, and unless the political establishment of the United States can find the political will to overhaul the program in the near future, many of the benefits promised to future generations will go unfunded.

3. Social Security: Past, Present and Future

Since its inception in 1935, Social Security has been one of the three traditional legs of retirement for the American family. In addition to company pensions and private investments, Social Security covers a large portion of the retirement income of today's elders. Due to the demographic changes and aging issues facing America as depicted above, the system is seen by many as under increasing strain. As the Social Security

Administration reports, "the worker-to-beneficiary ratio has fallen from 16.5-to-1 in 1950 to 3.3-to-1 today."³⁶ By the year 2030, that ratio is projected to diminish even further, to 2.2-to-1.³⁷

The purpose of the Social Security program is to provide a specified level of monthly income to American retirees. In 2006, 49 million people received benefits totaling \$546 billion.³⁸ This makes Social Security the largest government program, edging out Defense discretionary spending and Medicare.

Income to fund the program is generated from individual taxpayers, their employees, and taxes placed on Social Security benefits. For the former, all American employees are required by law to pay 6.2 percent of their payroll taxes to the system. Employers are required by law to pay another 6.2 percent to the system. For sole-proprietors, the full 12.4 percent burden falls on the company owner.³⁹

Social Security has always had sufficient funds to pay benefits to retirees. In fact, more income is currently generated than is being paid out, and the surplus is invested in special issue U.S. Treasury securities that have grown to \$2 trillion. As the baby boom generation retires between 2008 and 2030, a strain will be placed on this "surplus," to the point that the annual cost of the program will exceed tax revenues beginning in 2017. In other words, the program will take in less than needed, and Social Security will need to start using its surplus (Figure 3). At this point, the program will start by using the interest it earns on the trust funds to pay benefits. Although interest on these assets will continue to grow for a few years thereafter, by 2026 the program will be forced to start redeeming the bonds in the trust fund to raise the additional funds needed to pay full benefits. For 15 years after that point, tax revenues, interest earnings, and proceeds from redeeming the Treasury bonds will be sufficient to pay full benefits.

³⁵ Jason Furman, "Top Ten Facts on Social Security's 70th Anniversary," *Center on Budget and Policy Priorities*, 11 August 2005, 2-3.

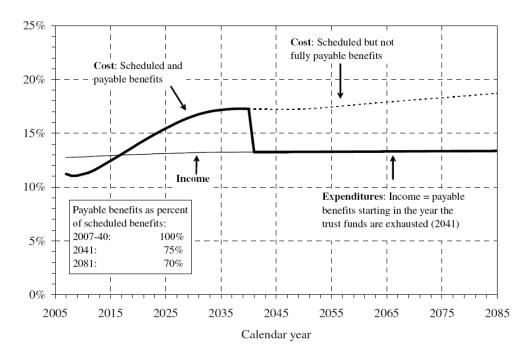
³⁶ Social Security Administration, "Frequently Asked Questions about Social Security's Future," http://www.ssa.gov/qa.htm (accessed 17 March 2007).

³⁷ Social Security Administration, "The 2007 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds," http://www.ssa.gov/OACT/TR/TR07 (accessed 17 March 2007), 9.

³⁸ *Ibid*, 2.

³⁹ These taxable amounts only occur on the first \$97,500 of income.

Figure 3. OASDI Income and Cost Rates Under Intermediate Assumptions as a Percentage of Taxable Payroll



Source: From OASDI 2007 Trustees Report. Available online at http://www.ssa.gov/OACT/TR/TR07.

The Social Security trust fund will be fully exhausted by 2041. If this occurs, which is not likely given popular and political support for Social Security, Generation Xers would have substantially lower benefits than the generation that precedes them. Barring any changes, Social Security would take in only enough to pay for 75 percent of promised benefits, and the income used to pay those benefits will come straight and strictly from tax revenues. This caused the trustees to note in their report that while the program passes the short-range test of financial adequacy, it continues to fail the long-range test (75 years) of actuarial balance by a wide margin.

Projecting the future outlays of the program requires certain assumptions, both demographic, economic, and program specific in nature. Due to the inherent uncertainty created by projecting these types of variables into the future, the trustees have created three sets of alternatives, a high, a low, and an intermediate, for their work. This thesis only focuses on the intermediate alternative, which is the best estimate of the Board. To

outline all intermediate assumptions here is beyond the scope of this thesis, but a quick synopsis of the broadest and pertinent assumptions is highlighted briefly below:

- TFR will remain around 2.0 for women aged 14 to 49;
- Net immigration to the United States will remain around one million per year;
- Annual increase in productivity is expected to be around 1.7 percent; and
- Annual increases in the consumer price index (CPI) are assumed to be 1.8 percent.

Because projecting the future of Social Security outlays can become nebulous the further into the future one goes, the Board's short-range projections only extend ten years, or to 2016. Figures used for years after 2017 are estimates only. Analyzing Social Security spending as a percentage of GDP during the years in which the baby boom generation enters retirement yields the following diagram:

Social Security Spending 7.00 6.00 5.00 % of GDP 4.00 3.00 2.00 1.00 0.00 1990 1995 2000 2005 2010 2015 2020 2025 Fiscal Year

Figure 4. Social Security Spending as a Percentage of GDP

Note: Data obtained from Appendix A.

One can clearly see that over the past decade and a half, Social Security outlays as a percentage of GDP have remained relatively steady, at around 4 percent. The demands put on the system by retiring seniors will push that figure up to over 6 percent as a percentage of GDP between 2015 and 2030.

In an effort to allay fears about the future of Social Security, President Bush attempted to make Social Security reform his top domestic agenda item during his second

term in office. His efforts to establish voluntary personal retirement accounts were rebuffed by most voters, especially Democrats in Congress. In the FY2008 budget, the President reiterated his position, stating that Social Security would include "voluntary personal accounts funded by a portion of the worker's Social Security payroll taxes. The Budget includes the estimated impact from the creation of such personal accounts. In 2012, the first year of the accounts, contributions will be capped at four percent of Social Security taxable earnings up to a \$1,300 limit, increasing by \$100 each year through 2017."⁴⁰ Additionally, the President would like to index to inflation future benefits for the highest wage earners while keeping lower-wage workers' benefits tied to wage growth, the current law for all beneficiaries. But the budget resolution for FY2008 accepts neither of these proposed reforms.

4. Social Security: Concluding Remarks

In conclusion, older Americans in the past have benefited from Social Security. Social Security, however, is a system based on the assumption that future generations will outnumber previous generations. This allows the program to continue to grow in its effort to pay benefits to successive generations to come. Although the program is solvent in the short term, there is reason to be concerned about the long term projections. Future generations will continue to benefit from this program but, absent reform, at reduced benefit rates.

There are two primary reasons for this. First, the baby boom generation that is about to enter retirement is expected to place a burden on the system, as a greater number of beneficiaries will be supported by a lower number of Americans paying into the system. Second, a bi-partisan effort is necessary to exact change. The last time this was done was in 1983, by a commission led by Alan Greenspan.

⁴⁰ Office of Management and Budget, "Budget of the United States Government, Fiscal Year 2008," http://www.whitehouse.gov/omb/budget/fy2008/pdf/budget/ssa.pdf (accessed 12 August 2007), 144.

D. ENTITLEMENT SPENDING IN AMERICA – MEDICARE AND MEDICAID

1. Introduction

Arguably a larger concern for Americans than solving the issues surrounding Social Security is resolving how to curb the runaway costs associated with healthcare. Since their inception in the mid-1960s, costs associated with Medicare and Medicaid have increased about 2.5 percentage points faster per year than has per capita GDP.⁴¹ If left unchecked for the following four decades, federal spending for these two programs would increase from about 4.5 percent of GDP today to about 20 percent by 2050; that amount would represent roughly the same share of the economy as the entire federal budget does today.⁴²

2. Healthcare in the Federal Budget

For purposes of this thesis, only Medicare and Medicaid will be explored, but by no means are these the only two healthcare programs found in the federal budget. Medicare, Function 570 of the federal budget, represents healthcare coverage provided to elders over the age of 65. Medicaid, found in Function 550 of the federal budget, differs from Medicare in that it is a program funded by the federal government and by states that is intended to provide healthcare and health related services to low income individuals.

Other functions of the federal budget that provide healthcare coverage include Defense, Function 050, and Veterans Benefits, Function 700. Additionally, a portion of salaries and expenses (S&E) of all federal agencies goes toward healthcare insurance of federal employees in a program called the Federal Employees Health Benefits plan. Healthcare spending in the federal budget for FY2006 is found in Table 1.

⁴¹ Congressional Budget Office, "The Long-Term Budget Outlook," http://www.cbo.gov/ftpdoc.cfm?index=4916&type=0&sequence=0 (accessed 21 June 2007): 6 – 7, 31 – 32

⁴² From Congressional Budget Office testimony presented to the U.S. Senate Committee on the Budget, 21 June 2007.

Table 1. Healthcare Spending in the Federal Budget

Function	Outlays in Billions
050: Defense 550: Health 570: Medicare 700: Veterans Benefits S&E	\$38 \$263 \$331 \$34 \$32
Total:	\$698

Source: From House Concurrent Resolution 95, Concurrent Resolution on the Budget for Fiscal Year 2006

Healthcare constitutes a large and growing portion of the federal budget. Table 1 shows that, when taken together, total government spending on healthcare in FY2006 was nearly \$700 billion, over a quarter of the total federal budget.⁴³ The table also shows that the two major healthcare entitlement programs of Medicare and Medicaid amount to the largest portion of total healthcare spending.

3. Medicare

Medicare consists of four parts, Parts A through D. Part A, otherwise known as hospital insurance (HI), covers hospital, home, and hospice care for the elderly. Parts B and D are supplementary medical insurance (SMI) for elderly and disabled who voluntarily enroll in the program. Both Parts B and D are adequately funded for the next ten years, but Part A is not. For this reason, the most attention is needed to "fix" HI. The 2007 Trustees Report states that the HI trust fund is projected to be exhausted in 2019...and that HI tax income is estimated to fall short of HI expenditures in 2007 and is projected to do so in all future years (Figure 5).⁴⁴

⁴³ Office of Management and Budget, "President's FY08 Budget Request to Congress," http://www.gpoaccess.gov/usbudget/fy08/pdf/hist.pdf (accessed 12 July 2007): 54. This document shows federal outlays for FY2006 as \$2,655.435 billion.

⁴⁴ U.S. Department of Health and Human Services, "The 2007 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds," Federal Hospital Insurance and Supplemental Medical Insurance Board of Trustees, http://www.cms.hhs.gov/ReportsTrustFunds/downloads/tr2007.pdf (accessed 12 July 2007): 3 – 4.

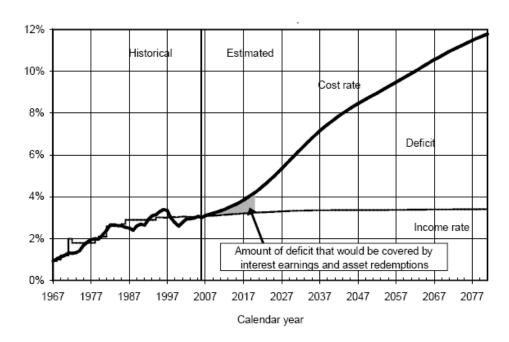


Figure 5. Long-Range HI Income and Cost as a Percentage of Taxable Payroll

Source: From Medicare 2007 Trustees Report. Available online at http://www.cms.hhs.gov/ReportsTrustFunds/downloads/tr2007.pdf.

Arguably the primary reason for the financial adequacy of SMI versus HI is that the two have different trust funds and different sources of revenue. Whereas SMI receives revenues from the Treasury's general fund as well as monthly premiums from beneficiaries, making that portion of the Medicare program fully funded indefinitely, HI is funded by employers and employees through a payroll tax equivalent to 1.45 percent of wages, or 2.9 percent each. Sole-proprietors pay the full 2.9 percent of their net income. As one can clearly see, as a huge swath of the population enters retirement and begins to tap this system, there will be fewer workers to pay the taxes necessary to fully fund and support this program. This, coupled with cost growth relative to GDP growth will make the program insolvent in the short term.

The Congressional Budget Office (CBO) points out that although an aging population is a cause for the growth in healthcare costs, the major factor actually lies with the development and increasing use of new medical technology, which has been fueled in part by the prevalence of health insurance coverage and has driven up the costs per

beneficiary.⁴⁵ Whereas in most sectors of the economy technology has proven to lower costs associated with productivity, in healthcare the reverse is actually true. The CBO states further that widely available health insurance coverage – both public and private – means that individual consumers have little incentive to restrict their consumption of services, because the price they face is far lower than the cost of providing the service.⁴⁶

4. Medicare's and Medicaid's Long-Term Economic Impact on the Federal Budget

On March 8, 2007, the CBO provided a report to Congressman Jeb Hensarling in response to his inquiry about the state of America's entitlement programs and the effects of the future growth of these programs on the economy. The CBO indicated that both Medicare and Medicaid have consumed a growing share of the budget in recent decades, and that the aging of the population and increased healthcare costs are the primary drivers, with the latter being the real catalyst. These increased healthcare costs create questions of economic sustainability. The CBO argues that on its current trajectory, the federal debt will grow substantially, creating significant budget deficits that reduce national saving, slow private capital formation, lower economic growth, and possibly produce a sustained economic contraction.⁴⁷

On June 18, 2007, the ranking member of the Senate's Committee on the Budget, Senator Judd Gregg, asked the CBO to assess the potential economic effects of using higher tax rates to finance the projected increases in entitlement spending over the next several decades. In the CBO's response, presented to Senator Gregg on July 9, 2007, a model was created to determine what marginal tax rates would have to be raised to in an effort to keep up with the projected increased costs of Medicare. The answer lies in substantial marginal tax increases, so much so that the 10 percent tax rate, the lowest under the current tax code, would have to be increased to 26 percent, and the highest

⁴⁵ Congressional Budget Office, "The Long-Term Budget Outlook," http://www.cbo.gov/ftpdoc.cfm?index=4916&type=0&sequence=0 (accessed 10 July 2007): 6.

⁴⁶ *Ibid*, 6.

⁴⁷ Congressional Budget Office letter to Congressman Jeb Hensarling, http://www.cbo.gov/ftpdocs/78xx/doc7851/03-08-Long-Term%20Spending.pdf (accessed 17 August 2007).

current tax rate would have to be increased from 35 percent to 92 percent. The macroeconomic effects of this are significant. Tax avoidance and evasion would likely increase, and revenues could fall significantly short of the amount needed to finance the growth of spending.⁴⁸

As with Social Security, the Board of Trustees conducts annual projections using low, intermediate, and high assumptions. For purposes of illustration, only the intermediate assumptions are used in this thesis.

Pictorially, one can see the increases in entitlement spending that are projected to occur in the coming two decades. Figure 6 combines the three entitlement programs discussed here in an effort to show how they will grow over time.

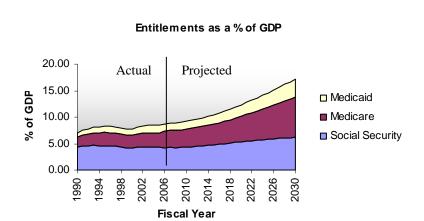


Figure 6. Entitlements as a Percentage of GDP

Figure 6 depicts three primary things. First, a 2 percent increase in spending for entitlements as a share of GDP has occurred in the past 15 years. Second, with the advent of the baby boom generation approaching retirement, entitlements are projected to increase by nearly 10 percent of GDP by the time all baby boomers are of retirement age. And third, although both Social Security and Medicaid outlays are due to grow, it is the rapid rise of Medicare costs that will push it to become the largest entitlement program by the end of this period.

⁴⁸ Congressional Budget Office letter delivered to Senator Judd Gregg, U.S. Senate Committee on the Budget, http://www.cbo.gov/ftpdocs/82xx/doc8295/07-09-Financing_Spending.pdf (accessed 10 July 2007).

5. Healthcare: Concluding Remarks

Medical coverage for Americans allows them to live longer and more fulfilling lives. Since their inception in the mid-1960s, however, Medicare and Medicaid have grown in size and are already the single largest burden to the federal budget as the baby boomers enter retirement. Short of meaningful healthcare reform it is entirely feasible that the whole federal budget could one day go to pay for the two major entitlement programs.

E. CONCLUSION

This chapter attempted to do two things. First, it attempted to highlight the demographic situation of the United States. Birth rates continue to be at replacement level, but thanks to immigration the country's population is projected to grow well into the future. This bodes well for the country's ability to grow economically, redistribute wealth, and fund key government programs.

This chapter also attempted to shed light on the growing concerns revolving around America's major entitlement programs. These popular programs are difficult to change politically, but the United States finds itself at a crossroads where change is paramount. Spiraling costs in future years coupled with diminishing trust funds will put each of the programs at financial risk. Even of broader importance, the economy of the United States will hang in the balance without reform, especially as it pertains to healthcare. Alternative ways for resolving the nation's long-term budget problems carry different implications for the economy, but those economic differences pale in comparison to the economic costs the nation would face in the long run if federal debts were allowed to grow faster than the economy for an extended period of time. The CBO states that "if the budget was on a sustainable track, real GDP could more than double between now and 2050...failing to achieve fiscal sustainability, however, could put the long-run growth of the economy at risk.⁴⁹

⁴⁹ Congressional Budget Office letter delivered to Senator Judd Gregg, U.S. Senate Committee on the Budget, http://www.cbo.gov/ftpdocs/82xx/doc8295/07-09-Financing_Spending.pdf (accessed 10 July 2007).

The issue of entitlement reform is so important in the eyes of David Walker, the nation's comptroller general at the Government Accountability Office, that he is currently on a road tour with members of the liberal Brookings Institute and conservative Heritage Foundation to generate interest among Americans to make this a voting issue in the 2008 primary and general elections. The message being conveyed is very clear – the current fiscal policy is unsustainable in the long-term.⁵⁰

At this point we have established a working knowledge of the key components of the federal budget that represent the mandatory, or non-discretionary, portions of the budget. Mandatory programs are funded by eligibility rules and payment rules. Congress does not increase or decrease the budget expenditures for these programs. Instead, what Congress can do is change the eligibility rules to include or exclude more people, adjust payments to medical providers, and adjust premium rates for beneficiaries.

This thesis will now introduce the defense budget, the largest discretionary component of the federal budget. Combining future projections in defense spending with the future projections for the entitlement programs will be key to determining whether or not the United States will continue to be able to maintain its status as the world's sole superpower and be able to fulfill its missions and obligations around the globe, especially as they pertain to the Middle East.

⁵⁰ Lori Montgomery, "Stumping for Attention to Deficit Disorder," *The Washington Post*, 21 June 2007.

THIS PAGE INTENTIONALLY LEFT BLANK

IV. ABILITY TO DEFEND THE NATIONAL INTEREST

A. INTRODUCTION

The first sentence in the 2006 Quadrennial Defense Review (QDR) states, "the United States is a nation engaged in what will be a long war."⁵¹ The document serves as a report of ideas and proposals for force modernization and transformation in the coming years as the United States positions itself for 21st century challenges. This most recent QDR revolved more heavily around capabilities than it did numbers, and it spoke of the pressing need for the United States military to become a lighter, more agile, and more deployable force. Agreeing with the sentiments of the QDR's signatory, Donald Rumsfeld, the Heritage Foundation said that "with the stakes no less than survival of the free world, leadership by the United States is essential to winning the 'long war' now raging against forces of Islamic fascism."⁵²

The so-called "long war" may be here to stay and may be the greatest challenge the United States faces in the first half of the 21st century, but war as seen in the 20th century may be a thing of the past. The number of major armed conflicts has declined steadily since 1999, and the figure for 2005 is the lowest for the entire post Col War period 1990 – 2005.⁵³ As a result of economic prosperity, free elections, stable central governments, better communication, more "peacemaking institutions," and increased international engagement, the world has gone through a steady, nearly uninterrupted decline in wars and conflict since 1991.⁵⁴ Indeed, the number of armed conflicts around

⁵¹ U.S. Defense Department, "Quadrennial Defense Review Report," http://www.defenselink.mil/qdr/report/Report20060203.pdf (6 February 2006): v.

⁵² Baker Spring, "Defense Spending," *The Heritage Foundation*, http://www.heritage.org/Research/features/issuearea/Defense.cfm (accessed 11 July 2007).

⁵³ Stockholm International Peace Research Institute, *SIPRI Yearbook 2006: Armaments, Disarmament and International Security* (Oxford University Press, 2006): 108.

⁵⁴ Gregg Easterbrook, "Explaining 15 Years of Diminishing Violence," *The New Republic*, 30 May 2005. The article points to the fact that there were 51 wars and armed conflicts in 1991 but only 20 by 2004.

the world has declined by more than 40 percent since the early 1990s, and between 1991 and 2004, 28 armed struggles for self-determination started and restarted, while 43 were contained or ended.⁵⁵

Notwithstanding these trends, the United States remains at war in Afghanistan and Iraq. Determining whether the political will and resources will be available for the military to effectively wage this War on Terror is difficult. This chapter will attempt to frame the future of U.S. defense spending given the pending demographic changes in the United States and the impact of these demographic changes on entitlement spending. One could conclude that if entitlement spending continues unchecked, the strain on the federal budget would be so severe as to cut into defense spending. This would erode the Defense Department's ability to prosecute the long war.

B. DISCRETIONARY SPENDING

1. Introduction

Discretionary spending refers to spending provided through annual appropriation bills passed by the Congress. It is in contrast to entitlement spending, which is provided through permanent appropriation. This means that the budget process displays a bias toward entitlement programs, with the result being "that entitlement spending is subject to continuous aggregation, while discretionary spending is subject to continuous negotiation."⁵⁶

Defense spending is not the only category of discretionary spending in the federal budget, but it is the largest. Other programs that fall under the discretionary portion of the budget include, but are not limited to, maintenance of national parks, education, transportation, veteran's benefits, and monies for international affairs and foreign aid. All categories of discretionary spending that are not defense-related are referred to as "non-defense discretionary" spending.

⁵⁵ Human Security Centre, "The Human Security Report," http://www.humansecurityreport.info/content/view/28/63 (accessed 17 August 2007): 1.

⁵⁶ Richard Doyle, "Congress, the Deficit, and Budget Reconciliation," *Public Budgeting and Finance*, (1996): 72.

Before Medicare and Medicaid were enacted in the mid-1960s, discretionary spending constituted the largest portion of the federal budget, but beginning in the mid-1960s that edge has disappeared (see Figure 7). For most of the past several decades, non-defense discretionary spending amounted to between 3 and 4 percent of GDP.⁵⁷ Defense, on the other hand, has fluctuated as a result of Cold War build-ups and the Vietnam War. Since 1965, defense discretionary spending has amounted to somewhere between a low of 3 percent in the three years preceding 9/11 to 9.4 percent in 1968, when the costs of the Vietnam War were added to the defense budget.⁵⁸ As a result, the discretionary portion of the federal budget typically goes the way defense spending goes.

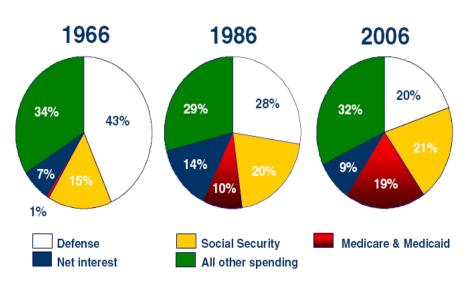


Figure 7. Composition of Federal Spending

Source: From Government Accountability Office, *DoD Transformation: Challenges and Opportunities*, 12 February 2007.

After 9/11, a premium has been placed on national security, thus the creation of the Department of Homeland Security and an increasing defense budget. In fact, the amount that the United States spends on defense is nearly as great as defense spending for the rest of the world. The SIPRI Yearbook for 2006 states that "the 15 countries that

⁵⁷ Congressional Budget Office, "The Long-Term Budget Outlook," http://www.cbo.gov/ftpdoc.cfm?index=4916&type=0&sequence=0 (accessed 12 July 2007): 39.

⁵⁸ *Ibid*, 37.

spent most on their military forces in 2005...account for 84 percent of all world spending...and the United States, with its 48 percent of world military expenditure, stands out even among the major spenders." But just as there can be increases in defense spending, there can also be decreases in defense spending as seen after the Cold War ended; in fact, this has been the general trend since World War II. The fluctuations are based on geopolitical events – primarily wars – that make it quite difficult to project defense spending more than just a couple of years into the future.

Defense Spending as a Percentage of GDP Vietnam 10.0 9.0 Reagan Build-Up 8.0 Post 9/11 7.0 % of GDP 6.0 5.0 4.0 3.0 2.0 Post Cold War Drawdown 1.0 0.0 696 1961 1971 Fiscal Year

Figure 8. Defense Spending as a Percentage of GDP

Source: From FY2008 President's Budget Submission to Congress, Historical Tables, Table 3.1, Outlays by Superfunction and Function, http://www.gpoaccess.gov/usbudget/fy08/pdf/hist.pdf, accessed 12 July 2007.

Although defense discretionary spending was as low as 3 percent, this number must be put in context. When the Cold War ended at the end of the 1980s to early 1990s, with the fall of the Berlin Wall and the dissolution of the Soviet Union, the Clinton Administration and Congress made deep defense cuts to reduce excess deemed no longer necessary. Twelve of 24 air wings were closed, eight of 18 army divisions were cut, and

⁵⁹ Stockholm International Peace Research Institute, *SIPRI Yearbook 2006: Armaments, Disarmament and International Security* (Oxford University Press, 2006): 300.

troop levels were reduced.⁶⁰ A new day had dawned, and it was no longer believed that the United States needed to maintain forces of the same magnitude that it had in years past.

2. 9/11 Implications for Defense Outlays

Although the 2000 defense budget increased in size from the earlier drawdown years, it was the terrorist attacks in New York and Washington, D.C. on 9/11 that served as the catalyst for the recent major and prolonged growth in defense budgets. The George W. Bush Administration took the position that terrorism must be defeated, and Congress supported his requests for larger defense budgets. In 2002, defense outlays rose by 14 percent – to 3.4 percent of GDP – because of operations in Afghanistan, other activities related to the war on terrorism, and defense initiatives that had been planned or funded before the attacks of September 11, 2001.⁶¹ This number continued to climb after the U.S. invaded Iraq in March 2003. After annual increases in outlays of 16 percent in 2003 and 12 percent in 2004, growth in defense outlays slowed to 9 percent in 2005 and to 5 percent in 2006; however, once additional appropriations are enacted to finance operations in Iraq and Afghanistan, defense outlays are likely to be close to \$560 billion – or 4.1 percent of GDP – in 2007.⁶² As for non-defense discretionary spending, the FY2007 appropriation bills for these various programs are expected to be \$471 billion and projected to grow with the economy over the coming decade. This would equate to a 2 percent increase per year from now to 2017.63

Leading up to the war in Iraq, the administration was hesitant to release estimates about the costs of going to war in Iraq, and the timing was such that Congress did not push the issue during the first years of the conflict. Defense Secretary Rumsfeld argued that estimating war costs is too difficult, requiring one to predict the outcome of some six to eight variables correctly just to come up with a figure. He did concede that the war

⁶⁰ Steven Kosiak, "Analysis of the FY2007 Defense Budget Request," *Center for Strategic and Budgetary Assessment*, April 2006.

⁶¹ Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2008 to 2017," http://mirror1.cbo.gov/ftpdocs/77xx/doc7731/01-24-BudgetOutlook.pdf (accessed 14 July 2007): 68.

⁶² *Ibid*, 68.

⁶³ *Ibid*, 71.

would cost under \$50 billion, but one of President Bush's economic advisors at the time, Larry Lindsay, projected that the war would cost between \$100 billion and \$200 billion.⁶⁴ This angered some government officials and shortly thereafter Mr. Lindsay resigned from his position.

As with almost all wars that preceded the War on Terror, this war was financed in its early stages using supplemental monies approved by Congress. The defense budget, as outlined above, is an annually planned part of the federal budget whose primary purpose is to pay for force structure and military readiness, *not* wartime obligations. Supplemental funds are provided in the early stages of war to cover combat costs.

What separates the Global War on Terror from previous wars is the policy that the administration has used to fund it. Whereas in past wars, like Vietnam, for example, where supplemental monies were used in the early going, those wars were funded in the regular defense budget in subsequent years. This has almost always been accompanied by an increase in taxes to cover the costs of war as well as maintain the ability to cover the costs of other government expenditures. However, the Bush Administration has not asked Congress for a tax increase since coming to office in 2001; rather, it has successfully pushed through tax cuts, which means that covering the costs of war will be paid by borrowing. The large supplemental bills that have passed each year since major operations broke out have come at the expense of conservative fiscal policy. Budget surpluses became budget deficits, and the public debt has increased dramatically.

A Congressional Research Service report for Congress highlights the enormity of the costs of the War on Terror. It notes that with the enactment of the FY2007 supplemental on 25 May 2007, Congress has approved a total of about \$610 billion for military operations, base security, reconstruction, foreign aid, embassy costs, and veteran's healthcare for the three operations initiated since the 9/11 attacks: Operation Enduring Freedom (OEF) Afghanistan and other counter terror operations; Operation Noble Eagle (ONE), providing enhanced security at military bases; and Operation Iraqi

⁶⁴ Steve Bowman, "Iraq: U.S. Military Operations," *Congressional Research Service*, 2 October 2003, 8.

Freedom (OIF).⁶⁵ Of this amount, approximately three-quarters has gone to OIF, with the remaining 25 percent funding OEF and enhanced base security in the region.

Because many in Congress objected to the lack of apparent transparency in the administration's defense budget requests over the past few years, the administration submitted a budget proposal for FY2008 that includes its estimates on what war costs will be in that year. The baseline FY2008 budget calls for a defense budget of \$481 billion. Additionally, the DoD submitted a separate emergency request of \$141.7 billion to cover war costs.

Determining what the future holds in terms of troop presence and total cost of combat is a difficult activity, but in February 2007 the CBO provided Congress with two possible scenarios. The first, and more ambitious scenario, assumed that deployed troops would be reduced to 30,000 by 2010. The second scenario assumed that deployed troops would gradually be reduced to 75,000 by the year 2013. Under the first scenario, the estimated additional costs of U.S. activities in Iraq, Afghanistan, and the War on Terrorism totaled \$472 billion in budget authority between 2007 and 2017. Under the second scenario, the estimated additional costs for executing the War on Terror in Iraq and Afghanistan totaled \$919 billion.⁶⁶ If these numbers prove accurate, that would bring the cost of the War on Terror to somewhere between \$1 trillion and \$1.5 trillion by midway through the next decade.

3. Discretionary Spending: Concluding Remarks

The discretionary portion of the federal budget is provided in annual appropriations acts, which includes spending for the Defense Department. Before 1974, discretionary spending was the predominant part of the budget and the one that gave the Congress the greatest amount of legislative discretion. With the increasing costs of entitlements, discretionary spending has become an increasingly smaller part of the total federal budget. This has had far reaching consequences that are just now being realized.

⁶⁵ Amy Belasco, "The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," *Congressional Research Service*, 16 July 2007.

⁶⁶ Congressional Budget Office letter to Senator Kent Conrad, "Estimated Funding for Operations in Iraq and the War on Terrorism," http://www.cbo.gov/ftpdocs/77xx/doc7793/02-07-CostOfWar.pdf (accessed 27 July 2007): Table 2.

Monies allocated to defense spending have been increased after 9/11 because of the paramount importance of providing for the nation's defense. The increase has brought defense spending from its all-time low of 3.0 percent of GDP to just over 4.0 percent of GDP, not including the supplemental monies that have continued to fund major combat operations in Iraq and Afghanistan. If the President continues to demand and the Congress to fund the prosecution of the wars in Afghanistan and Iraq without increasing taxes or decreasing spending elsewhere, the total amount of debt the government and the American people will incur in out years could very easily top a trillion dollars.

C. CHALLENGES FACING THE DEFENSE DEPARTMENT

1. Introduction

In order to fight and win tomorrow's wars, the United States currently finds itself having to prepare for both a conventional and an asymmetric threat. This means preparing for both state-on-state warfare as well as warfare against non-state actors. Protecting Americans and American interests from terrorist activities, long-range ballistic missiles, and potentially both space and cyber warfare is a daunting task.

2. Rising Cost of Personnel and Equipment

Efficiency in how the Defense Department carries out its tasks will prove vital to the success of its future. The major appropriation titles in the defense budget are military personnel, operations and maintenance (O&M), procurement, and research and development. Rising costs for personnel as well as cost overruns for major weapons systems are making it difficult for the Defense Department to prosecute the wars in Iraq and Afghanistan while also maintaining readiness at acceptable levels and continue defense transformation.

Between now and the foreseeable future, personnel costs are likely to rise. The two primary reasons for this are the growing costs associated with fielding a military member as well as the plus-ups in the size of the active-duty Army and the Marine Corps. Comparing the FY2000 defense budget with the FY2006 defense budget shows an

increase of approximately \$77 billion, almost 60 percent of which goes to military personnel and O&M. Much of this money has been used to improve the extent and quality of military training, to ensure that the quality of life in the military keeps up with the quality of life in the civilian sector, and to cover the increased costs for healthcare for military members and their families.⁶⁷ The Congressional Budget Office projects that the cost of increasing the active-duty Army by 65,000 and the Marine Corps by 27,000 personnel will be about \$108 billion over the 2007 – 2013 period, as compared to the force levels recommended in the QDR.⁶⁸

In addition to the increased costs of fielding a larger military, there are the increased costs of today's weapon systems and the acquisition of future hardware. The Joint Strike Fighter, space launch systems, and the Army Future Combat System are all examples of projects that are experiencing cost overruns, but ship building and the F/A-22 are perhaps the most discussed programs.

If life expectancy for a naval ship is 35 years, and the Navy would like to have a fleet of 300 vessels, then it should strive to average between eight and nine ships to be built per year. That has not been the case lately, jeopardizing the fleet in the long-term. In testimony before the Senate Armed Services Committee on February 10, 2005, the outgoing Chief of Naval Operations, Admiral Vernon Clark, said that costs of the major types of ships had grown by as much as 400 percent beyond inflation over the past thirty years, that greater capabilities explain only part of the increase, that so few ships are being built that overhead costs are spread too narrowly, and that the Navy cannot afford more than 250 ships in the long run unless costs are brought under control.⁶⁹

The Air Force has also struggled, especially with regard to its F/A-22 Raptor. Designed in the 1980s to replace an aging F-15 fleet, the Air Force originally intended to purchase 700 of these aircraft. Due to timeline delays, the Bottom-Up Review after the

⁶⁷ Stephen Daggett, "Defense Budget: Long-Term Challenges for FY2006 and Beyond," *Congressional Research Service*, 20 April 2005, 9 – 10.

⁶⁸ Peter Orszag, "Estimated Cost of the Administration's Proposal to Increase the Army's and the Marine Corp's Personnel Levels," *Congressional Budget Office*, 16 April 2007, 1. The 2006 QDR recommends an end strength of 482,400 personnel for the Army and 175,000 for the Marine Corps.

⁶⁹ Stephen Daggett, "Defense Budget: Long-Term Challenges for FY2006 and Beyond," *Congressional Research Service*, 20 April 2005, 13.

Cold War, and years of increased program costs, the Air Force found itself in a position to only receive a portion of the originally planned amount. As production cuts and further unit cost increases pushed the price of the aircraft up to over \$300 million per aircraft in FY2006 dollars, the Defense Department, against the wishes of the Air Force, decided to halt production after building about 180 planes.⁷⁰

3. Defense Department Challenges: Concluding Remarks

Maintaining a military force that retains a technological advantage is expensive. Transitioning to a modern, futuristic military capable of winning tomorrow's wars while maintaining the current force levels and fighting the GWOT will prove to be challenging, both from a management and fiscal perspective. The cost per military member has increased over the years, and cost overruns in the acquisition of new, major weapons systems are making it difficult to field the new equipment in the quantities needed with the resources allocated.

D. PROJECTING THE FUTURE OF DEFENSE SPENDING

1. Introduction

In order to determine whether defense monies will be adequate in future years, assumptions must be made about the future. As with any projections, the assumptions are critical.

For the purposes of this thesis, three different scenarios were run using defense spending as a percentage of GDP. As seen in Figure 4 on a previous page, defense spending as a percentage of GDP has fluctuated over time, but it has never dipped below 3 percent. Also, the wars in Iraq and Afghanistan have, until FY2008, been funded using supplemental dollars and thus have technically not been added to the defense budget. If the costs of these two wars were added to the defense appropriation bill, defense budgets over the past few years would have exceeded \$600 billion per year. As it is, defense spending as a percentage of GDP has grown to just over 4 percent. It is assumed here

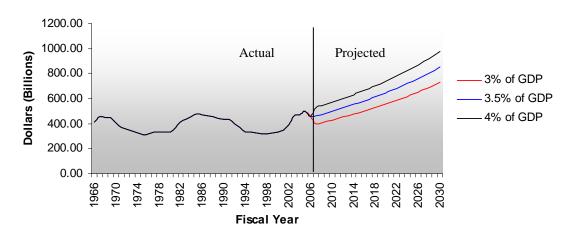
⁷⁰ Stephen Daggett, "Defense Budget: Long-Term Challenges for FY2006 and Beyond," Congressional Research Service, 20 April 2005, 13.

that defense spending will stay between 3 and 4 percent of GDP into the foreseeable future. At 3 percent, the Defense Department will barely be able to fund new major weapons systems and increased personnel. At 4 percent those challenges still exist but enough leverage is granted to continue with current operations and maintenance of the force.

2. Future Defense Projections

Projecting defense outlays is an inexact science, but it is necessary if one wants to draw conclusions about the effects that entitlement spending will have on defense spending in the future. Taking information from the 2007 Office of the Secretary of Defense – Comptroller "Greenbook" for years 1990 to 2006, and assuming future spending at 3 percent, 3.5 percent, and 4 percent of GDP for years 2007 to 2030, shows the following:

Figure 9. Projected Defense Spending to 2030, (Constant 2005 Dollars)



Projected Defense Spending (Constant 2005 Dollars)

Note: Data can be found in Appendix D.

Figure 9 shows the cost of maintaining the military over time. If the United States stays on a trajectory of 4 percent of GDP for defense outlays, it will cost more than \$4.3

trillion over the 3 percent of GDP amount between 2007 and 2030.⁷¹ This chart should not surprise anyone. Although the 4 percent figure for 2030 is a very large \$973 billion in constant 2005 dollars, about twice as much as today's defense budget, the GDP in 2030 is estimated at over \$24 trillion, nearly twice as much as it is today. If the American economy is able to sustain this modest growth over time, it can be argued that the defense budget may keep pace with the growth in the economy.

It should also be noted at this time that the above figure does not coincide with projections being made by the Defense Department or the administration. Both project defense spending, in absolute terms, to decline between now and 2012.⁷² The Center for Strategic and Budgetary Assessments (CSBA), an independent and non-partisan policy research institute, claims that lower defense budgets are unlikely to prove sufficient to pay for DoD's long-term force structure, modernization and readiness plans, and that fully implementing DoD's plans, over the long-term, could require increasing funding for defense by an additional \$75 billion or more per year beyond the levels called for in the administration's current plan.⁷³

At this point the question to ask is whether the United States will be able to fund a military using 3 to 4 percent of GDP in the out years given the growth in spending for entitlement programs. It is to that point that this paper now turns.

3. Modeling the Future of Entitlements and Defense Spending

At this point one has enough information to begin drawing conclusions about the future of the federal budget, especially as it pertains to projected entitlement spending

⁷¹ From Appendix D, this figure was calculated by taking the differences between the projected 4 percent and 3 percent numbers for each year between 2007 through 2030 and then adding the differences together. Note the \$4.3 trillion figure represents constant 2005 dollars.

⁷² The President's FY2008 budget proposal shows defense spending in 2005 as \$495 billion and as \$549 billion in current 2012 dollars, or \$468 billion in constant 2005 dollars. The Defense Department's 2007 Greenbook shows defense spending in 2005 as \$502 billion and again as \$502 billion in current 2011 dollars, or \$403 billion in constant 2005 dollars. Thus, the President's budget proposal shows a decrease of \$27 billion, and the Defense Department projects a decrease of almost \$100 billion, both in constant 2005 dollars.

⁷³ Center for Strategic and Budgetary Assessments, "Annual Defense Budget Report," http://www.csbaonline.org/2006-1/2.DefenseBudget/Annual_Defense_Budget.shtml# (accessed 16 July 2007).

and projected defense spending. Before beginning this discussion, however, it is quite important to preface any future modeling with a summary of federal spending as a percentage of GDP.

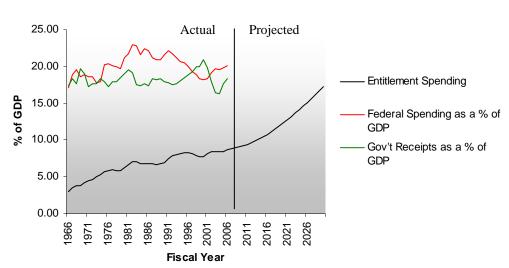
Excluding the World War II years when public spending skyrocketed past 40 percent of GDP, the United States has, by-and-large, kept public spending around 20 percent of GDP. During the Reagan and George H.W. Bush administrations, public spending crept beyond 20 percent of GDP, but never was public spending higher than 23 percent (1982 and 1983), and never was spending lower than 17 percent (1966). In fact, from 1966 to 2006, the average amount of federal spending as a percentage of GDP has been right at 20 percent.

How high can federal spending go before it is unsustainable? There is no magic number to be given here, but it is widely believed and common sensical that spending should not significantly and persistently exceed revenues. If it does, deficits will prove a strain to the economy. Thus, as long as a country is able to adequately fund its programs and service its debt, spending theoretically could go significantly higher than 20 percent.

The economy of the United States, the economy is projected to grow in the future, albeit at a rate between 2.5 and 3 percent per year.⁷⁴ The baseline for most analysts who project the future remains the same however; 20 percent of GDP is the most widely used statistic when determining the appropriate levels of federal spending. With this in mind, this thesis revisits Figure 10 from the previous chapter and is able to overlay the historical federal spending amounts onto the graph to produce the following.

⁷⁴ GDP figures for this thesis covering years 2007 to 2030 were obtained from the Social Security Administration website, http://www.ssa.gov/OACT/TR/TR07/lr6F4.html#2, accessed multiple times.

Figure 10. Impact of Mandatory Programs on Federal Spending



The Increase in Entitlement Spending

The green line represents tax generated revenue that the government receives primarily from individuals and corporations. The red line represents total government spending. Periods in which the green line is below the red line represents a year of deficit spending, whereas periods in which the red line is below the green line represents a year of a surplus. Deficit spending requires the government to issue debt to cover its expenses.

4. Future Projections: Concluding Remarks

One can easily discern from the above graph that if entitlement reform does not take place in the near future, the entitlement spending portion of the federal budget could one day consume all federal revenues. The chart shows entitlement spending on an upward trend, passing 17 percent of GDP by 2030. Whether the defense budget stays between 3 to 4 percent of GDP or goes below that figure (or above) is irrelevant if entitlement spending continues on its current path. Joining the projected defense figures of 3 to 4 percent of GDP with other government spending, and it is clear that there should be cause for concern in the defense establishment in future years, beginning in the very near future because entitlement spending will balloon to levels unprecedented in the

nation's history. If federal spending continues on its current path, it is quite possible that by 2030, federal spending may fall between 25 and 30 percent of GDP. If government receipts do not increase in the coming years to help off-set these costs, massive borrowing will ensue, pushing debt and the interest on the nation's debt ever higher.

E. POSSIBLE SOURCES FOR FILLING A VOID

Armed with the knowledge that future federal spending trends could potentially limit military operations, it is prudent to search for alternative means by which to implement policy goals in the Middle Eastern region. As seen in both Afghanistan and Iraq, multilateral efforts are necessary for the United States in the region. If certain trends continue to hold in the coming decades, however, it will be increasingly difficult for the United States to rely on traditional military allies from Western Europe. Most countries in Europe today are facing their own demographic crisis and at a level that makes the current issues in the United States seem to pale in comparison.

In addition to the traditional allies of Western Europe, the United States works with other countries on matters of common interest. Many countries have joined U.S.-led operations since the Cold War and have shown a willingness to strengthen ties with the United States in the years since. At the forefront of this effort are countries like Australia and New Zealand, Japan and South Korea, and the countries from Central and Eastern Europe that joined the NATO alliance in 1997 (Czech Republic, Hungary and Poland) and 2004 (Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia). Additionally, there are 23 Partnership-for-Peace nations, as well as seven Mediterranean Dialogue and six Istanbul Cooperation Initiative countries from Central Asia, Northern Africa and the Middle East working toward better relations with NATO member states.

1. The Ability of Allies to Contribute to the Common Defense

Between the end of World War II and the end of the Cold War, many Western European countries enjoyed the security provided by the United States against Soviet expansion and the threat of a nuclear attack. The financial priority was economic recovery and growth. With Europe relatively secure, the countries focused their efforts on providing social welfare benefits to an aging population. As a result, defense outlays

have decreased, as seen in defense spending as a percentage of GDP in the larger Western European states of Britain, France, Germany, Italy, and Spain. In the late 1980s, at the end of the Cold War, the percentage of the economy being spent by these countries on defense ranged between 2 and 4.5 percent. In the years since the Cold War ended, defense expenditures there have dwindled, and are between 1 and 2.5 percent in 2006.⁷⁵

If one looks even further into the data, it will reveal that a growing portion of these countries' defense budgets is being spent on personnel at the expense of equipment and modernization. With the exception of Britain, the other four countries are spending anywhere between half to just over three-fourths of defense expenditures on personnel.⁷⁶ Since the number of military members in absolute terms has stayed flat or has decreased,⁷⁷ one can only assume that the increase in personnel expenses is the result of legacy costs.

In 2005, the only region of the world with a decrease in military expenditure was Europe, with a 1.7 percent decrease.⁷⁸ The level of Central European military expenditure did not change, while in Eastern Europe it increased by 8.9 percent, largely because of Russia's increases in defense spending; but, as West European military spending accounts for about 86 percent of total European spending, the result is still a tangible decrease for the whole region.⁷⁹

Of the seven countries of Eastern Europe that joined the NATO alliance in 2004, six of them have increased defense expenditures since joining the alliance, Slovakia being the lone exception. Due to the small size of their economies, defense spending in real terms is quite small. Only two of the seven, Bulgaria and Romania, spend more than

⁷⁵ North Atlantic Treaty Organization (NATO), "NATO-Russia Compendium of Financial and Economic Data Relating to Defence," http://www.nato.int/docu/pr/2006/p06-159.pdf (18 December 2006), 7. The data shows defense expenditures, as a percentage of GDP, for the period of 1985-1989 as 4.5 for Britain, 3.7 for France, 3.0 for Germany, 2.2 for Italy, and 2.1 for Spain. In 2006, the estimated figures are 2.3 for Britain, 2.4 for France, 1.3 for Germany, 1.7 for Italy, and 1.2 for Spain.

⁷⁶ *Ibid*, 9.

⁷⁷ *Ibid*, 10.

⁷⁸ Stockholm International Peace Research Institute, *SIPRI Yearbook* 2006: *Armaments, Disarmament and International Security* (Oxford University Press, 2006): 297.

⁷⁹ *Ibid*.

2 percent of GDP on defense. Additionally, all seven of these NATO countries were recipients of U.S. military assistance in 2005, assistance totaling over \$51 million.⁸⁰

The same trend found in the 2004 NATO group can also be found when analyzing the three European countries that received NATO member status in 1999. The Czech Republic, Hungary, and Poland have all increased defense expenditures since 1999, but all three spend a small amount on defense, with Poland the highest country at 2 percent.⁸¹ Additionally, all three countries receive military assistance from the United States. In 2005, total military assistance to these states amounted to nearly \$95 million, with 80 percent of that amount going to Poland.⁸²

The U.S. Defense Department produces an annual report titled *Allied Contributions to the Common Defense*, covering allied contributions made during a given calendar year. This report considers countries in the NATO alliance before enlargement in 1999; Pacific allies Australia, Japan, and Republic of Korea; and Gulf Cooperation Council allies Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The 2004 version of this document provides a clear picture of defense spending.

Data from in the *Allied Contributions* publication are used to assess a country's contribution relative to its ability to contribute. The analysis is conducted in three stages:

- A country's *contribution* expressed as a share of the total contributions of all nations;
- A country's ability to contribute expressed as a share of the total of all nations;
 and
- A ratio of the share of contribution divided by the share of ability to contribute.⁸³

⁸⁰ U.S. Department of State, "FY2007 Congressional Budget Justification for Foreign Operations," http://www.state.gov/documents/organization/60653.pdf (accessed 17 August 2007).

⁸¹ Stockholm International Peace Research Institute, *SIPRI Yearbook* 2006: *Armaments, Disarmament and International Security* (Oxford University Press, 2006): 340, 347 – 348.

⁸² U.S. Department of State, "FY2007 Congressional Budget Justification for Foreign Operations," http://www.state.gov/documents/organization/60653.pdf (accessed 17 August 2007).

⁸³ U.S. Department of Defense, "2004 Statistical Compendium on Allied Contributions to the Common Defense," http://www.defenselink.mil/pubs/allied_contrib2004/allied2004.pdf (accessed 17 August 2007).

This last point suggests the concept of equity of a nation's efforts. Although no baseline is given in the publication, the average ratio among the 27 countries is 1.38 and falls between the ninth and tenth country on the list. The top ten countries in terms of this ratio are shown in Table 2.

Table 2. Relative Ability to Contribute

<u>Rank</u>	Country	Ratio of Defense Spending 2003 Share / GDP Share
1	Oman	4.65
2	Saudi Arabia	4.57
3	Qatar	3.84
4	Kuwait	2.66
5	Bahrain	2.03
6	United Arab Emirates	1.95
7	Turkey	1.91
8	Greece	1.64
9	United States	1.39
10	Republic of Korea	1.11

Source: From 2004 Statistical Compendium on Allied Contributions to the Common Defense, http://www.defenselink.mil/pubs/allied_contrib2004/allied2004.pdf, accessed 29 July 2007.

As one can clearly see, the Gulf Cooperation Council (GCC) countries of the Middle East took the top six spots on the list. In comparison, not a single Western European country broke the top ten. It should be noted that France and Britain finished 11th and 12th respectively, but Italy, Germany, and Spain finished 19th, 22nd, and 24th respectively.

While Western Europe's defense expenditures have gone down since the Cold War, the defense expenditures in the Middle East, especially among the resource-rich countries, have risen sharply. In 2005 the Middle East, together with North America, was the region with the greatest increase in military expenditure, a 50 percent increase since 1996.⁸⁴ Leading this effort is Saudi Arabia. In 2005 Saudi Arabia was the eighth largest

⁸⁴ Stockholm International Peace Research Institute, *SIPRI Yearbook 2006: Armaments, Disarmament and International Security* (Oxford University Press, 2006): 295, 298.

country in terms of defense spending at \$26.5 billion, third only to the United States and Israel when measuring spending per capita.⁸⁵ With Germany and Italy cutting defense expenditures, it is totally feasible that Saudi Arabia will surpass them in the near future to become the sixth largest defense budget in the world. Anthony Cordesman of the Center for Strategic and International Studies says, "Washington cannot – and should not – try to bring security to the Gulf without allies, and Saudi Arabia is the only meaningful military power there that can help deter and contain a steadily more aggressive Iran." ⁸⁶

2. The Use of U.S. Foreign Aid to the Middle East

Security assistance has been an institutionalized and continuing effort on the part of the United States since the end of World War II. Now known as security cooperation, these efforts are intended to promote specific U.S. interests while developing friendships and alliances for multinational operations.

Security assistance is foreign aid funded in the International Affairs budget, Function 150, which is part of discretionary spending in the federal budget. The International Affairs budget is a small part of the federal budget, accounting for only about \$30 billion in 2006,⁸⁷ and is the money executed primarily by the State Department for international purposes. The International Affairs budget provides monies for foreign aid and assistance. The two largest aid packages the United States uses when providing assistance to the Middle East come in the form of Economic Support Funds and Foreign Military Finance dollars.

Economic Support Funds, or ESF, are grant dollars given to a developing country or a country under reconstruction for the purpose of promoting economic and political stability. Creating stability is intended to allow the recipient country to provide for the needs of its people as well as give it standing in the international community. In 2006 the amount of ESF allocated worldwide was \$2.616 billion, of which \$1.26 billion was

⁸⁵ Stockholm International Peace Research Institute, SIPRI Yearbook 2006: Armaments, Disarmament and International Security (Oxford University Press, 2006): 302.

⁸⁶ Anthony H. Cordesman, "Weapons of Mass Preservation," New York Times, 16 August 2007.

⁸⁷ Office of Management and Budget, "President's FY08 Budget Request to Congress," http://www.gpoaccess.gov/usbudget/fy08/pdf/hist.pdf (accessed multiple times): 54.

delivered to countries in the Middle East; the money was primarily intended to be used to encourage democratic reform and political institution building in the Middle East and to target the economic despair and lack of opportunity by extremists.⁸⁸

The Foreign Military Finance program, or FMF, is also grant money intended to provide articles and services to support coalition partners and states critical to the Global War on Terror. The result is intended to be a strengthening of security for the United States. In 2006 the amount of FMF appropriated by Congress was \$4.465 billion, with the lion's share being given to Middle Eastern countries. Indeed, \$3.814 billion of the \$4.465 billion in 2006 was given to Middle Eastern countries, and more specifically Israel (\$2.257 billion), Egypt (\$1.287 billion) and Jordan (\$207.9 million) made up over 98 percent of all FMF dolled out in the Middle East in 2006.⁸⁹

Foreign aid to the Middle East began in earnest during the Nixon Administration. Although the United States courted Egypt after World War II, primarily in an attempt to keep the Egyptians from falling under Soviet influence, it was not until after the Seven Day War of 1967 that aid to Israel increased to a substantial amount. In fact, Israel has been the recipient of the largest amount of foreign aid that the United States has given to any country. From 1971 to 2005, the United States has granted Israel a total of \$90.783 billion. No other country comes close to receiving the amount of aid that Israel has received. Aid began in earnest to Egypt after the 1979 Camp David Peace Treaty with Israel, and Jordan became a large recipient nation after Oslo in 1994.

The fallout from the 9/11 terrorist attacks in the United States added a new dimension to foreign assistance to the Middle East, as the reconstruction efforts in Iraq have caused the United States to ramp up assistance to that country. By the end of 2006, the United States had provided about \$29 billion in foreign aid for various civilian and

⁸⁸ U.S. Department of State, "Congressional Budget Justification for Foreign Operations for Fiscal Year 2008," http://www.state.gov/documents/organization/84462.pdf (accessed 17 August 2007): 48.

⁸⁹ U.S. Department of State, "Congressional Budget Justification for Foreign Operations for Fiscal Year 2008," http://www.state.gov/documents/organization/84462.pdf (accessed 17 August 2007): 482, 492, and 494.

⁹⁰ Jeremy M. Sharp, "U.S. Foreign Assistance to the Middle East: Historical Background, Recent Trends, and the FY2007 Request," *Congressional Research Service*, 21 December 2006, 7, 12. Page 7 shows assistance to Israel from 1971 to 2001 as \$78,908.6 million. Page 12 shows assistance to Israel for years 2002 to 2005 as \$11,874.233 million.

military rebuilding and security projects in Iraq following the ouster of Saddam Hussein. With Iraq now in need of long-term development and military assistance, many analysts expect aid requests for Iraqi reconstruction to continue in the near future.⁹¹

3. Filling a Void: Concluding Remarks

America's Western European allies are facing demographic crises to an extent not realized in the United States. The ramifications of these challenges, as well as the way in which Europe is now coming to view its post Cold War role in the world primarily in economic versus military terms, are causing less money to be spent on each country's defense establishment. This is reason for concern for many in the senior leadership of the U.S. Defense Department. Despite public comments of unity and strength in the NATO alliance, it is becoming increasingly clear that U.S. military operations in the Middle East will be undertaken with reduced support from Western European allies.

New alliance members appear to be placing more emphasis on defense as seen in recent increases on defense spending. Deploying troops to Afghanistan and Iraq is a positive sign that these countries are willing to support U.S.-led efforts in the region. However, the economies of these countries are small, and their military capabilities still quite limited.

In addition to defense outlays, the United States spends a modest amount on foreign assistance in the region, but this money is almost exclusively earmarked for only three countries: Israel, Egypt, and Jordan. Global ESF and FMF accounted for a combined \$7 billion in 2006, accounting for less than 0.03 percent of the total federal budget. With this, the United States has influenced relations between Egypt and Israel as well as Jordan and Israel, and until the Palestinian elections that brought Hamas to rule, aid to Palestine has provided humanitarian assistance to the Palestinian people while allowing the Palestinian ruling regime under Yasser Arafat to legitimize itself. Given funding constraints and the difficultly in persuading the American public that it is worthwhile to spend U.S. tax revenues on other countries, it is difficult to imagine an

⁹¹ Jeremy M. Sharp, "U.S. Foreign Assistance to the Middle East: Historical Background, Recent Trends, and the FY2007 Request," *Congressional Research Service*, 21 December 2006, 9.

increase in foreign assistance to the region, but with on-going efforts in Iraq and Afghanistan, it is conceivable that increases are imminent.

F. CONCLUSION

The Defense Department represents the largest discretionary program in the federal budget. At 55 percent of total discretionary spending, it overshadows the non-defense discretionary programs. Since the 1960s, the portion of the federal budget allocated to defense spending has dropped from 52 percent to 19 percent in 2007.⁹² After the Vietnam War and the end of the Cold War, it was perceived that less money should be spent on defense in an effort to help balance the budget. As a result, the defense budget slipped to just 3 percent of GDP.

As a result of 9/11 and the hawkish response to the terrorist attacks, spending for defense and homeland security has increased sharply. The increase in defense spending over the past six years has resulted in a defense budget for FY2006 that has grown to almost 20 percent of federal spending and just over 4 percent of GDP.⁹³

The cost of modernization, end-strength increases for the Army and the Marines, and healthcare for military members is creating difficult decisions for senior defense leaders. Cost overruns in many of these programs are such that the services are finding it difficult to procure weapons systems in the quantities desired.

Projecting the future of defense is always a tricky endeavor. It is difficult to predict the geopolitical landscape five years from now, to say nothing of 20 years from now. Assuming the defense budget stays within 3 to 4 percent of GDP, however, provides insight into what the military may be able to achieve in future years. With entitlement spending projected to grow to over 17 percent of GDP by 2030, it appears that the defense budget may get squeezed in the future if entitlement reform is slow to come.

 $^{^{92}}$ U.S. Department of Defense, "National Defense Budget Estimates for 2007," http://www.defenselink.mil/comptroller/defbudget/fy2007/fy2007_greenbook.pdf (accessed multiple times): $216-217.\,$

⁹³ Office of Management and Budget, "President's FY08 Budget Request to Congress," http://www.gpoaccess.gov/usbudget/fy08/pdf/hist.pdf (accessed multiple times): 54.

The strain put on the discretionary portion of the federal budget with the growth of major entitlement programs indicates that the United States will likely need assistance from allies if it intends to remain a presence in the Middle East for years to come. The problem, it appears, is that America's Western European allies will find it harder and harder to resource a force significant enough to assist the United States, suggesting an increased reliance on Eastern European states, Saudi Arabia and others. But as most countries in Europe struggle with the consequences of an aging population as well as a declining population, these European governments may continue to spend less for defense. This will put a burden on the United States to "go it alone" in some instances as it attempts to stabilize the Middle East and lead it towards greater prosperity.

V. CONCLUSION

The confluence of issues facing the Middle East today could have long term ramifications if left unresolved. Both the positive and negative forces of globalization are impacting this region. On the one hand, globalization is creating wealth for many people. On the other hand, globalization has created challenges that leave many countries exposed to oil price shocks and the disenfranchisement of those being left behind from the distribution of wealth.

A second issue facing the Middle East today is the emergence of the younger generation. This "youth bulge" constitutes a segment of society equal to about a third of the total population in the region. Within the next ten years this youthful demographic, those aged between 15 and 24, will enter their productive years and will be in search of economic opportunity. With high unemployment rates already, it is unclear whether jobs will exist for this group. As a result, there are anxieties among the young and senior government officials arising from a fear that if opportunities do not exist, the state will be blamed.

The final issue facing the Middle East today is how to best integrate Iran into the regional community. The only Shi'a dominated country in the region, Iran appears to the U.S. and to some of its neighbors to have regional hegemonic aspirations as well as plans to develop nuclear technology that can easily be converted to weapons grade material. Together with the fact that the U.S. State Department declares Iran as a state sponsor of terrorism, this puts Iran as the top foreign policy challenge for the United States according to the National Security Strategy.

All three of the issues listed above are already proving to be volatile this decade but will take center stage by the middle of the next decade when the "youth bulge" enters a productive age and Iran has developed weapons grade nuclear technology. Combined, these issues will be difficult challenges for the United States.

If the United States could choose a time to deal with the confluence of issues that could foment political instability, economic stagnation, and social repression in the Middle East, it is difficult to imagine the middle of the next decade as that time. Phillip

Longman, Ben Wattenberg, Laurence Kotlikoff and Scott Burns, and Peter Peterson all published books in 2004 highlighting the demographic situation that the United States will face in the coming years. They argue that falling birthrates will pose significant challenges for the United States and her allies. As the baby boom generation begins entering retirement as early as next year, a federal budget strain will ensue that will make it increasingly difficult to fund defense expenditures in the wake of significantly increased entitlement spending. Healthcare programs are at the center of this fiscal storm. The outcome for the United States, they predict, will be increased budget deficits.

In the introduction, this thesis pointed to three key questions. What effect will the strain on entitlements have on the ability of the United States to conduct foreign policy abroad, primarily from a military perspective? Will the United States struggle to maintain its military dominance around the globe and, most importantly, in the Middle East? What challenges will the U.S. face when attempting to provide stability in this rather unstable region, and how will the troubles facing America at home affect its efforts abroad?

Entitlement programs in the United States – primarily Social Security, Medicare, and Medicaid – have provided a social safety net that has prevented many millions of Americans from falling into poverty. Widely popular, these programs have become a permanent fixture in the federal budget since the advent of Social Security in 1935. Over the years, entitlement spending has become the largest and fastest growing portion of the federal budget. In 2006, entitlements constituted about 60 percent of the total federal budget. As the baby boom generation enters retirement from 2008 to 2030, this number will only increase. Short of reform, entitlements will consume the entire federal budget by the end of this period.

At the forefront of entitlement growth is healthcare. An aging population, coupled with rising costs, use of new medical technology, and the prevalence of health insurance coverage have driven up the costs per beneficiary. This has caused both Medicare and Medicaid to grow at a rate 2.5 percent higher than the economy for the past few decades. This is unsustainable in the long run and will need to be reformed sooner rather than later to avoid making harder decisions in the future.

Concurrent with the growth in entitlement spending is a Defense Department simultaneously fighting major wars in Afghanistan an Iraq while trying to transform and modernize itself to face the challenges of the 21st century. A lighter, more agile, and more deployable force is deemed necessary, notwithstanding the decrease in the number of armed conflicts since the end of the Cold War. Transforming the U.S. military into a conventional force capable of winning state-on-state wars while also preparing to face networks of non-state actors is an enormous and costly undertaking. Personnel increases and cost overruns on major weapons systems have delayed the modernization effort.

For whatever military operations the United States finds itself in during the 21st century, coalitions will be as necessary as they were in the 20th century. Most of the countries from Europe and Asia that the United States relied on in former coalition efforts appear to support U.S. efforts when they are deemed to be in the mutual interest of all parties, but those countries have their own challenges to deal with.

Almost every country in Asia and Europe that has been an ally of the United States since World War II is witnessing a decline in population. This has contributed, in part, to the decline in defense expenditures in these countries, especially in Europe. Today most European countries have defense expenditures between 1.5 and 2.5 percent of GDP, with the lower end of that range being more prevalent. All ten countries that joined the NATO alliance since 1999 have received and continue to receive military assistance from the United States. To what degree this assistance has helped with their decisions to support U.S.-led military operations is unclear, but these countries are filling roles in Afghanistan and Iraq that the United States is either unwilling or unable to fill.

Although defense expenditures in many countries are decreasing, the defense budgets of friendly countries in the Middle East have grown tremendously in recent years. Saudi Arabia's defense budget makes it the world's eighth largest country in terms of defense spending, and it is on the heels of both Germany and Italy to become the sixth largest country. The smaller Gulf countries on the Arabian peninsula have also increased defense spending, but in absolute terms this amounts to a small real increase due to the relatively small size of these countries.

This brings the thesis full circle. Coalition efforts will be as necessary in the coming decades as they were in past decades, and allies in the Middle East are critical to any U.S. effort in the region. Also, Central and Eastern European countries, as well as allies from Australia and the Pacific Rim have been notable contributors to recent efforts in Afghanistan and Iraq. Western European allies of the NATO alliance have the economic strength to help but are placing less and less emphasis on defense expenditures due to other budget priorities.

The United States has its own budget priority issues that it must deal with. Entitlement reform, and more specifically healthcare reform, is necessary in the short to medium term. If left unchecked, entitlement spending could consume such a large portion of the federal budget as to squeeze out monies necessary to not only defend the homeland but to promote national security interests abroad, especially as they pertain to the Middle East.

APPENDIX A – COST OF OASDI (BILLIONS)

<u>Year</u>	Total Cost ⁹⁴	GDP ⁹⁵	% of GDP
1990	378.33	8,674	0.0436
1991	393.40	8,602	0.0457
1992	406.55	8,827	0.0461
1993	417.30	8,996	0.0464
1994	425.56	9,318	0.0457
1995	435.64	9,484	0.0459
1996	440.35	9,735	0.0452
1997	449.03	10,103	0.0444
1998	457.84	10,475	0.0437
1999	460.61	10,867	0.0424
2000	470.64	11,130	0.0423
2001	483.90	11,166	0.0433
2002	501.30	11,368	0.0441
2003	508.60	11,636	0.0437
2004	518.72	12,112	0.0428
2005	529.90	12,456	0.0425
2006	538.18	12,836	0.0419
2007	564.05	13,148	0.0429
2008	572.81	13,510	0.0424
2009	592.07	13,898	0.0426
2010	617.59	14,296	0.0432
2011	640.73	14,696	0.0436
2012	669.63	15,082	0.0444
2013	701.22	15,445	0.0454
2014	735.13	15,809	0.0465
2015	770.71	16,191	0.0476
2016	805.69	16,578	0.0486
2020	980.55	18,466	0.0531
2025	1,226.46	21,146	0.0580
2030	1,500.94	24,326	0.0617

⁹⁴ Total Cost figures were obtained from the historical tables of the President's FY08 Budget Request to Congress, located at http://www.gpoaccess.gov/usbudget/fy08/pdf/hist.pdf, accessed multiple times. Figures from 1990 to 2006 were taken from this site. Projections from 2007 to 2016 were obtained from the Social Security Administration website, http://www.ssa.gov/OACT/TR/TR07/lr6F4.html#2, accessed multiple times. All figures were converted to constant 2005 by author.

⁹⁵ GDP figures for 1990 to 2006 were obtained from the Bureau of Economic Analysis, U.S. Department of Commerce website, http://www.bea.gov/national/nipaweb/TableView.asp#Mid, accessed multiple times. GDP figures for 2007 to 2030 were obtained from the Social Security Administration website, http://www.ssa.gov/OACT/TR/TR07/lr6F4.html#2, accessed multiple times. All figures were converted to constant 2005 by author.

APPENDIX B – COST OF MEDICARE (BILLIONS)

Year	Total Cost ⁹⁶	<u>GDP⁹⁷</u>	% of GDP
1990	163.68	8,674	0.0189
1991	173.06	8,602	0.0201
1992	189.41	8,827	0.0215
1993	202.65	8,996	0.0225
1994	220.91	9,318	0.0237
1995	236.40	9,484	0.0249
1996	247.51	9,735	0.0254
1997	255.93	10,103	0.0253
1998	250.55	10,475	0.0239
1999	249.49	10,867	0.0230
2000	254.31	11,130	0.0229
2001	273.06	11,166	0.0245
2002	288.52	11,368	0.0254
2003	300.98	11,636	0.0259
2004	323.48	12,112	0.0267
2005	342.05	12,456	0.0275
2006	404.70	12,836	0.0315
2007	421.91	13,148	0.0321
2008	444.39	13,510	0.0329
2009	468.45	13,898	0.0337
2010	492.07	14,296	0.0344
2011	516.76	14,696	0.0352
2012	545.69	15,082	0.0362
2013	574.80	15,445	0.0372
2014	604.81	15,809	0.0383
2015	637.34	16,191	0.0394
2016	672.90	16,578	0.0406
2020	895.30	18,466	0.0485
2025	1,279.35	21,146	0.0605
2030	1,828.15	24,326	0.0752

⁹⁶ Total Cost figures were obtained from the U.S. Department of Health and Human Services, http://www.cms.hhs.gov/NationalHealthExpendData/03_NationalHealthAccountsProjected.asp#TopOfPage, accessed multiple times. Figures from 1990 to 2016 were taken from this site. Projections from 2017 to 2030 were obtained by increasing the figure by 7.4 percent for each subsequent year. 7.4 percent was chosen as that is the figure the CBO projects Medicare will increase by between 2008 and 2017, according to their January 2007 Budget and Economic Outlook, 2008 – 2017, p. 69. All figures were converted to constant 2005 by author.

⁹⁷ GDP figures for 1990 to 2006 were obtained from the Bureau of Economic Analysis, U.S. Department of Commerce website, http://www.bea.gov/national/nipaweb/TableView.asp#Mid, accessed multiple times. GDP figures for 2007 to 2030 were obtained from the Social Security Administration website, http://www.ssa.gov/OACT/TR/TR07/lr6F4.html#2, accessed multiple times. All figures were converted to constant 2005 by author.

APPENDIX C – COST OF MEDICAID (BILLIONS)

Year	Total Cost ⁹⁸	GDP ⁹⁹	% of GDP
1990	63.60	8,674	0.0073
1991	81.32	8,602	0.0095
1992	94.65	8,827	0.0107
1993	103.74	8,996	0.0115
1994	107.11	9,318	0.0115
1995	110.44	9,484	0.0116
1996	114.64	9,735	0.0118
1997	115.76	10,103	0.0115
1998	119.20	10,475	0.0114
1999	127.00	10,867	0.0117
2000	133.82	11,130	0.0120
2001	146.22	11,166	0.0131
2002	159.98	11,368	0.0141
2003	171.25	11,636	0.0147
2004	178.03	12,112	0.0147
2005	178.80	12,456	0.0144
2006	172.55	12,836	0.0134
2007	180.78	13,148	0.0138
2008	190.24	13,510	0.0141
2009	200.48	13,898	0.0144
2010	211.59	14,296	0.0148
2011	223.64	14,696	0.0152
2012	236.68	15,082	0.0157
2013	250.54	15,445	0.0162
2014	265.38	15,809	0.0168
2015	281.18	16,191	0.0174
2016	297.74	16,578	0.0180
2020	402.08	18,466	0.0218
2025	585.34	21,146	0.0277
2030	852.12	24,326	0.0350

⁹⁸ Total Cost figures were obtained from the U.S. Department of Health and Human Services, http://www.cms.hhs.gov/NationalHealthExpendData/03_NationalHealthAccountsProjected.asp#TopOfPage, accessed multiple times. Figures from 1990 to 2016 were taken from this site. Projections from 2017 to 2030 were obtained by increasing the figure by 7.8 percent for each subsequent year. 7.8 percent was chosen as that is the figure the CBO projects Medicaid will increase by between 2008 and 2017, according to their January 2007 Budget and Economic Outlook, 2008 – 2017, p. 69. All figures were converted to constant 2005 by author.

⁹⁹ GDP figures for 1990 to 2006 were obtained from the Bureau of Economic Analysis, U.S. Department of Commerce website, http://www.bea.gov/national/nipaweb/TableView.asp#Mid, accessed multiple times. GDP figures for 2007 to 2030 were obtained from the Social Security Administration website, http://www.ssa.gov/OACT/TR/TR07/lr6F4.html#2, accessed multiple times. All figures were converted to constant 2005 by author.

APPENDIX D – DEFENSE OUTLAYS (BILLIONS)

Year	$\overline{\text{TOA}}^{100}$	3% GDP	3.5% GDP	4% GDP	GDP ¹⁰¹
1990	430.53				8,674
1991	436.27				8,602
1992	394.80				8,827
1993	366.50				8,996
1994	334.87				9,318
1995	331.93				9,484
1996	325.55				9,735
1997	317.74				10,103
1998	315.38				10,475
1999	324.23				10,867
2000	332.25				11,130
2001	345.33				11,166
2002	388.81				11,368
2003	460.88				11,636
2004	471.03				12,112
2005	502.34				12,456
2006	456.94				12,836
2007		394.44	460.18	525.92	13,148
2008		405.30	472.85	540.40	13,510
2009		416.94	486.43	555.92	13,898
2010		428.88	500.36	571.84	14,296
2011		440.88	514.36	587.84	14,696
2012		452.45	527.86	603.27	15,082
2013		463.36	540.59	617.82	15,445
2014		474.28	553.33	632.37	15,809
2015		485.74	566.70	647.66	16,191
2016		497.34	580.23	663.12	16,578
2020		553.98	646.31	738.64	18,466
2025		634.38	740.11	845.84	21,146
2030		729.79	851.42	973.06	24,326

¹⁰⁰ Total Obligational Authority figures were obtained from the 2007 Greenbook of the Office of the Secretary of Defense Comptroller, located at

http://www.defenselink.mil/comptroller/defbudget/fy2007/fy2007_greenbook.pdf, accessed multiple times. Figures from 1990 to 2006 were taken from this site. Projections from 2007 to out years were calculated by author. All figures were converted to constant 2005 by author.

¹⁰¹ GDP figures for 1990 to 2006 were obtained from the Bureau of Economic Analysis, U.S. Department of Commerce website, http://www.bea.gov/national/nipaweb/TableView.asp#Mid, accessed multiple times. GDP figures for 2007 to 2030 were obtained from the Social Security Administration website, http://www.ssa.gov/OACT/TR/TR07/lr6F4.html#2, accessed multiple times. All figures were converted to constant 2005 by author.

LIST OF REFERENCES

BOOKS

- Bhagwati, Jagdish. *In Defense of Globalization*. New York: Oxford University Press, 2004.
- Kotlikoff, Laurence J. and Scott Burns. *The Coming Generational Storm: What You Need to Know About America's Economic Future*. Boston: MIT Press, 2005.
- Longman, Phillip. *The Empty Cradle: How Falling Birthrates Threaten World Prosperity and What to Do about It.* New York: Basic Books, 2004.
- Peterson, Peter G. Running on Empty: How the Democratic and Republican Parties are Bankrupting Our Future and What Americans Can Do About It. XYZ: Farrar, Straus, and Giroux, 2004.
- Peterson, Wallace C. *The Social Security Primer: What Every Citizen Should Know* Armonk: M.E. Sharpe, 1999.
- Stockholm International Peace Research Institute. SIPRI Yearbook 2006: Armaments, Disarmament and International Security. Oxford University Press, 2006.
- Wattenberg, Ben J. Fewer: How the New Demography of Depopulation Will Shape Our Future. Chicago: Ivan R. Dee, 2004.

JOURNALS

- Belasco, Amy. "The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11." *Congressional Research Service*, 16 July 2007.
- Bowman, Steve. "Iraq: U.S. Military Operations." *Congressional Research Service*, 2 October 2003.
- Daggett, Stephen. "Defense Budget: Long-Term Challenges for FY2006 and Beyond." Congressional Research Service, 20 April 2005.
- Daggett, Stephen. "Defense Budget: Long-Term Challenges for FY2006 and Beyond." Congressional Research Service, 20 April 2005.

- Doyle, Richard Doyle. "Congress, the Deficit, and Budget Reconciliation." *Public Budgeting and Finance* (1996).
- Eifert, Benn, Alan Gelb, and Nils Borje Tallroth. "Managing Oil Wealth." *Finance and Development* 40:1 (2003).
- El-Said, Hamed and Jane Harrigan. "Globalization, International Finance, and Political Islam in the Arab World." *The Middle East Journal* 60:3 (2006): 456.
- Furman, Jason. "Top Ten Facts on Social Security's 70th Anniversary." *Center on Budget and Policy Priorities*, 11 August 2005.
- Katzman, Kenneth. "Iran: U.S. Concerns and Policy Responses." *Congressional Research Service*, 23 January 2007.
- Kosiak, Steven. "Analysis of the FY2007 Defense Budget Request." *Center for Strategic and Budgetary Assessment*, April 2006.
- Kugler, Jacek and Ronald Tammen. "Regional Challenge: China's Rise to Power." *The Asia-Pacific: A Region in Transition* (2004): 39.
- Kuran, Timur. "Why the Middle East is Economically Underdeveloped: Historical Mechanisms of Institutional Stagnation." *Journal of Economic Perspectives* 18:3 (2004): 87.
- Nasr, Vali, "When the Shiites Rise," *Foreign Affairs*, July/August (2006), http://www.foreignaffairs.org/20060701faessay85405/vali-nasr/when-the-shiites-rise.html (accessed 3 August 2007).
- Orszag, Peter. "Estimated Cost of the Administration's Proposal to Increase the Army's and the Marine Corp's Personnel Levels." *Congressional Budget Office*, 16 April 2007.
- Oxford Analytica. "Middle East: Population Growth Poses Huge Challenge." *Oxford Analytica* (2007): 3.
- Population Reference Bureau, "Transitions in World Population," *Population Bulletin* 59:1 (2004).
- Robert Looney. "Why has the Middle East Been so Slow to Globalize." *Review of Middle East Economics and Finance* 3:3 (2005): 200.

- Sharp, Jeremy M. "U.S. Foreign Assistance to the Middle East: Historical Background, Recent Trends, and the FY2007 Request." *Congressional Research Service*, 21 December 2006.
- Yousef, Tarik. "Development, Growth and Policy Reform in the Middle East and North Africa since 1950." *Journal of Economic Perspectives* 18:3 (2004): 92.

MAGAZINE AND NEWSPAPER ARTICLES

- Cordesman, Anthony H. "Weapons of Mass Preservation." *New York Times*, 16 August 2007.
- Easterbrook, Gregg. "Explaining 15 Years of Diminishing Violence." *The New Republic*, 30 May 2005.
- Gordon, Michael R. "U.S. Says Iran-Supplied Bomb is Killing More Troops in Iraq." *New York Times*, 8 August 2007.
- Montgomery, Lori. "Stumping for Attention to Deficit Disorder." *The Washington Post*, 21 June 2007.

WEB SITES

- Center for Strategic and Budgetary Assessments. "Annual Defense Budget Report." http://www.csbaonline.org/2006-1/2.DefenseBudget/Annual_Defense_Budget.shtml# (accessed 16 July 2007).
- Congressional Budget Office. "The Long-Term Budget Outlook." http://www.cbo.gov/ftpdoc.cfm?index=4916&type=0&sequence=0 (last accessed 17 July 2007).
- Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2008 to 2017." http://mirror1.cbo.gov/ftpdocs/77xx/doc7731/01-24-BudgetOutlook.pdf (last accessed 14 July 2007).
- Congressional Budget Office letter to Congressman Jeb Hensarling. http://www.cbo.gov/ftpdocs/78xx/doc7851/03-08-Long-Term%20Spending.pdf (accessed 17 August 2007).
- Congressional Budget Office letter delivered to Senator Judd Gregg, U.S. Senate Committee on the Budget. http://www.cbo.gov/ftpdocs/82xx/doc8295/07-09-Financing_Spending.pdf (accessed 10 July 2007).

- Congressional Budget Office letter to Senator Kent Conrad. "Estimated Funding for Operations in Iraq and the War on Terrorism." http://www.cbo.gov/ftpdocs/77xx/doc7793/02-07-CostOfWar.pdf (accessed 27 July 2007).
- Freedom House. "Freedom in the World, 2007 Edition." http://www.freedomhouse.org/template.cfm?page=366&year=2007 (accessed 11 August 2007).
- Human Security Centre. "The Human Security Report." http://www.humansecurityreport.info/content/view/28/63 (accessed 17 August 2007).
- North Atlantic Treaty Organization (NATO). "NATO-Russia Compendium of Financial and Economic Data Relating to Defence." http://www.nato.int/docu/pr/2006/p06-159.pdf (18 December 2006).
- Office of Management and Budget. "Budget of the United States Government, Fiscal Year 2008." http://www.whitehouse.gov/omb/budget/fy2008/pdf/budget/ssa.pdf (last accessed 12 August 2007).
- Office of Management and Budget. "President's FY08 Budget Request to Congress." http://www.gpoaccess.gov/usbudget/fy08/pdf/hist.pdf (last accessed 12 August 2007).
- Office of the President of the United States. "The National Security Strategy of the United States of America." http://www.whitehouse.gov/nsc/nss/2006 (accessed 27 July 2007).
- Population Reference Bureau. "Data Finder." http://www.prb.org/DataFind/datafinder7.htm (accessed 17 July 2007).
- Social Security Administration. "The 2007 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds." http://www.ssa.gov/OACT/TR/TR07 (last accessed 17 March 2007).
- Social Security Administration. "Frequently Asked Questions about Social Security's Future." http://www.ssa.gov/qa.htm (accessed 17 March 2007).
- Spring, Baker. "Defense Spending." *The Heritage Foundation*. http://www.heritage.org/Research/features/issues/issuearea/Defense.cfm (accessed 11 July 2007).
- United Nations Population Division. "World Population Prospects, the 2006 Revision Database." http://esa.un.org/unpp (last accessed 17 July 2007).

- U.S. Census Bureau. "International Database." http://www.census.gov/cgi-bin/ipc/idbagg (last accessed 12 August 2007).
- U.S. Census Bureau. "Historical Estimates of World Population." http://www.census.gov/ipc/www/worldhis.html (accessed 12 August 2007).
- U.S. Department of Defense. "Quadrennial Defense Review Report." http://www.defenselink.mil/qdr/report/Report20060203.pdf (6 February 2006).
- U.S. Department of Defense. "2004 Statistical Compendium on Allied Contributions to the Common Defense." http://www.defenselink.mil/pubs/allied_contrib2004/allied2004.pdf (last accessed 17 August 2007).
- U.S. Department of Health and Human Services. "The 2007 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds." Federal Hospital Insurance and Supplemental Medical Insurance Board of Trustees.

 http://www.cms.hhs.gov/ReportsTrustFunds/downloads/tr2007.pdf (last accessed 12 July 2007).
- U.S. Department of Homeland Security. "2006 Yearbook of Immigration Statistics." http://www.dhs.gov/xlibrary/assets/statistics/yearbook/2006/table02.xls (accessed 7 July 2007).
- U.S. Department of State. "FY2007 Congressional Budget Justification for Foreign Operations." http://www.state.gov/documents/organization/60653.pdf (accessed 17 August 2007).
- U.S. Department of State. "Country Reports on Terrorism 2006." http://www.state.gov/s/ct/rls/crt/2006/82736.htm (accessed 27 July 2007).
- U.S. Department of State. "FY2007 Congressional Budget Justification for Foreign Operations." http://www.state.gov/documents/organization/60653.pdf (accessed 17 August 2007).
- U.S. Department of State. "Congressional Budget Justification for Foreign Operations for Fiscal Year 2008." http://www.state.gov/documents/organization/84462.pdf (last accessed 17 August 2007).

INITIAL DISTRIBUTION LIST

- Defense Technical Information Center Ft. Belvoir, Virginia
- 2. Dudley Knox Library Naval Postgraduate School Monterey, California